CTC

TRENDS

National Training Center (NTC)

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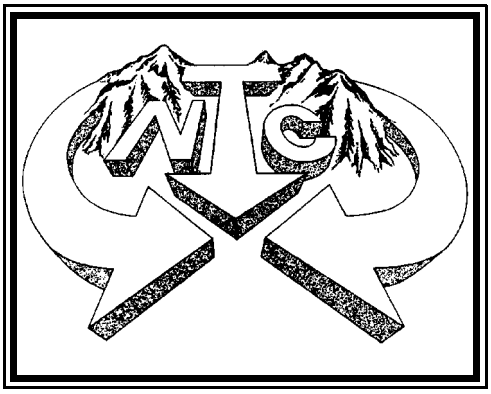

1QFY98 and 2QFY98

with Techniques and Procedures that Work!

CENTER FOR ARMY LESSONS LEARNED (CALL)
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
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NATIONAL TRAINING CENTER TRENDS AND TTPs,
1ST AND 2ND QUARTERS, FY 98

The CALL Lessons Learned Division, CTC Branch, collects these trends and TTPs from the respective Observer/Controller (OC) teams and compiles the results. Organized by the Battlefield Operating System (BOS), the trends reflect both *Positive Performance* and *Needs Emphasis* based on quarterly assessment. Trends and TTPs from NTC's Leader Training Program (LTP) and senior NCOs are included when available.

Each of the trends is annotated according to Final Draft, TRADOC Pam 11-9, *Blueprint of the Battlefield*, dated 10 September 1993. **The trends are numbered sequentially for ease of reference, and are not in any priority order**. A statement of the problem or positive performance is provided with supporting observations and suggested TTPs.

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NTC TRENDS AND TTPs, 1st and 2nd Quarters, FY 98

Organized by BOS, these are the trends submitted by NTC O/Cs for 1st and 2nd quarters, FY98. As appropriate and/or available, they provide doctrinal references and tactics, techniques and procedures (TTPs) for the needed training emphasis. Each trend is annotated with *Blueprint of the Battlefield* codes for use in long-term trend analysis.

INTELLIGENCE BOS

(Trends are numbered sequentially for cross-reference and are <u>not</u> in any priority order.)

<u>Needs Emphasis</u>

TREND 1: (LTP) Depth of expertise in the S2 section.

PROBLEM: Within the brigade S2 sections that participate in LTP, the depth of threat knowledge normally resides primarily with the S2 but not the subordinate S2 section members. Consequently, the S2 assumes the majority of the task of analyzing the enemy. When an assistant S2 is required to assume the role of assisting in the staff planning session, the quality of input provided by that assistant is normally less accurate and less effective. This lack of depth is attributable to several factors to include:

- Experience level of the subordinates.
- New personnel within the section.
- S2's confidence in the subordinates.
- Ineffective Home-Station training.

Technique: Recommend that S2s develop an internal S2 section training program that addresses the threat. The expertise of threat knowledge will facilitate the spreading of responsibility for planning among other members of the S2 section. With the OPTEMPO of an NTC rotation, this will then ensure that the staff planning support does not rest solely on the S2. This observation is routinely identified to the S2 during the LTP session as well as being addressed in the LTP S2 seminar.

(TA.5 Intelligence BOS)

TREND 2: Reconnaissance and Surveillance (R&S) plan development. Task Force (TF) S2s and assistant S2s continue their role as the only planners in the R&S effort.

RESULTS:

1. Leaving the task force S2 to solely develop the R&S effort means no integrated product (i.e., no R&S OPORD).
2. Fire integration, casualty evacuation (CASEVAC), and task and purpose are often left out.
3. NAIs are often not prioritized, infiltration routes and OP repositioning plans are not addressed.
4. Weak PIRs are not linked to NAIs.

5. Scouts are often sent out late without an enemy SITEMP. Most task forces only provide the scouts with an R&S matrix, frequently giving inaccurate start and stop times.

Techniques:

1. R&S plans must be integrated with input from other staff planners.
2. Task forces should produce an ***R&S OPORD*** written by the S3 with input from all staff elements.
3. The S2 should include the enemy SITEMP in the R&S order for timely receipt of this information by the scouts.
4. Staff synchronization is necessary for the task force R&S plan (OPORD) to work.

(TA.5.1 Develop Tactical Intelligence Requirements)

TREND 3: Task force planning and supervision of reconnaissance and surveillance (R&S) operations. task force and squadron S2s, S3s, and commanders continue to have difficulty planning and supervising R&S operations.

PROBLEMS:

1. Task force staffs tend to lack an appreciation for the technical abilities of the unit's assets and the force protection and sustainment requirements for R&S operations.
2. The S2's R&S efforts are not coordinated with the staff, to include adjacent and higher headquarters.
3. Although task force S2s adequately identify intelligence requirements, the staffs are unable to identify and manage all available assets.

RESULTS:

1. Units over task by superimposing *repetitive* and *redundant* collection requirements.
2. The inability to coordinate R&S efforts with the staff, to include adjacent and higher headquarters, often leads to the loss of lives and poorly executed or unsuccessful plans.

Techniques:

1. Task force commanders and S3s must recognize their role in R&S planning and supervision. This will allow task force and squadron S2s time to analyze reconnaissance data and recommend redirection of collection efforts.
2. If task force S2s are on the "blame line" for planning and supervising R&S operations, then it is essential he or she receives all required protection and sustainment support, and has full authority to execute fire missions, etc., required for success.

(TA.5.1 Develop Tactical Intelligence Requirements)

TREND 4: Engineer battalion S2/S3 employment of reconnaissance.

PROBLEM: Too often, engineer battalion S2/S3s do not incorporate engineer reconnaissance into the overall brigade reconnaissance/surveillance (R&S) plan. They are often sent out as an afterthought without clear task and purpose, or are assigned contingencies such as Modular Pack Mine System (MOPMS) strike teams.

Techniques:

1. The employment of engineer reconnaissance should be a critical task of the engineer battalion S2/S3.

a. They must provide increased input to the brigade plan.

b. They must develop engineer specific NAIs and decision points, and ensure that observation responsibility is assigned to the appropriate collection asset.

c. They must synchronize the battalion plan with the brigade R&S plan, and establish a system for reporting key engineer intelligence directly to the engineer battalion S2.

2. The engineer battalion S2/S3 should issue clear and complete OPORDs to the engineer reconnaissance teams and ensure they deploy with graphics, maps, reporting matrixes, and a communication plan.

3. Establish a system for tracking the location and activity of the teams, and for receiving, analyzing, and disseminating this critical information. This should be done regardless of the task organization.

4. Use the battalion command net for communications.

(TA.5.1 Develop Tactical Intelligence Requirements)

TREND 5: (LTP) Task force Reconnaissance and Surveillance (R&S).

PROBLEM: Although reconnaissance and surveillance (R&S) planning is detailed and fundamentally sound at the task force level, task forces habitually do not follow up with their brigade on many R&S issues during the later stages of R&S planning and preparation.

- They do not plan for air movement for the COLTs that are OPCON to them.
- When planning air assault operations, they do not take into account competing demands for helicopters that would also be moving brigade assets.
- They believe that they have good terrain management in their area of operations (AO), but then find brigade R&S assets in their AO after crossing the line of departure (LD).

Techniques:

1. Task forces should refine the R&S plan through the execution phase to ensure that their plan is synchronized.

2. The task force staff should focus on terrain management.

(TA.5.1 Develop Tactical Intelligence Requirements)

TREND 6: (LTP) Engineer Involvement in R&S Planning. The engineer battalion rarely plays a major part in the brigade's R&S planning.

PROBLEMS:

1. Routinely, the engineer effort in support of the R&S effort is inadequate. Proposed locations for the assets going forward (i.e., COLTs, scouts, command and control, ADA, IEW, etc.) are not addressed by the engineers.

2. A relationship between the assistant brigade engineer (ABE) and the R&S planning cell rarely occurs. When engineers do accompany task force scouts or COLTs with an obstacle intelligence (OBSINTEL) collection mission, they normally cross the FLOT with minimal guidance.

Techniques:

1. The ABE must become a key player during R&S planning.
2. Terrain products should be produced that support the R&S plan.
3. During a deliberate attack, engineer-specific NAIs should be developed and refined. Enemy obstacles invariably hold the key to how the enemy is defending.

(TA.5.1 Develop Tactical Intelligence Requirements)

TREND 7: Integration of Air Defense into the Intelligence Preparation of the Battlefield (IPB).

PROBLEMS:

1. Task force (TF) staffs routinely omit or fail to integrate the air portion of the IPB during the TF planning process.
2. Air defense platoon leaders do not cross talk the air threat with the S2 throughout the TDMP process.
3. The air threat is seldom briefed by the S2 or the air defender during mission analysis. When it is briefed, the air defender's intelligence often completely differs from the S2's air intelligence.
4. The task force commander does not identify air defense priorities because of a lack of information on the enemy's air capability.
5. Most S2s integrate air avenues on the SITEMP, but few conduct a detailed air threat analysis.
6. The most likely COA for enemy air is rarely identified.

RESULTS:

1. The task force commander, staff, and company commanders gain little appreciation for the enemy air threat and capabilities.
2. Air defense plans are oriented on unit movement instead of concentrating available assets to defeat the air threat.
3. The task force commander's guidance to the air defense officers (ADOs) is unfocused (Example, ADA: protect the force).

Techniques:

1. The S2 should draw on the ADO for expertise on enemy air threat capabilities. Begin by referring to **FM 34-130**, Appendix C, reference the three dimensional IPB.
2. The air-associated IPB cannot be treated separately. It must be used to show the synergy of air and ground threat. The air defense officer should cross talk with the S2 to develop the air portion of the IPB.
3. Identify who will brief the air threat during mission analysis and the OPORD. The air defender should ensure that air defense priorities are established with the air threat in mind, and ensure that the task force commander understands how the enemy will use his air assets to support his scheme of maneuver.
4. During the mission analysis, the air threat must be briefed to the task force commander up front. This allows the commander to "see" critical points on the battlefield where the unit is most vulnerable to air attack. The commander can then prioritize ADA coverage IAW the threat and his intent/maneuver scheme. ADA assets will be positioned to defeat the air threat while the

force postures to take active or passive air defense measures.

5. A standard 1:250,000 map should be used to conduct a detailed analysis of the terrain and refined using a 1:50,000 map.

6. The air IPB should include:

a. Key Terrain:
- Airfields
- LAS and DZ
- FARPs
- Choke Points

b. Air Avenues:
- Type of Aircraft
- Max Ceiling
- Attack Profile
- Weapon Systems
- Target to be Attacked

c. Weather:
- Visibility
- Wind Speed and Direction
- Precipitation
- Cloud Cover
- Temperature

d. Threat Evaluation:
- Enemy Aircraft/Missile
- Air Order of Battle
- Aircraft Capabilities
- Ordnance
- Tactical Flight Doctrine
- Priorities of Attack
- Command and Control

e. Threat Integration:
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- Air Avenues of Approach
- Determine best use terrain given aircraft's own capabilities and attack profile.

f. Event Template:
- Aerial NAIs
- Terrain constraints on air avenue to potential target
- Decision Support Template

g. Decision Support Template:
- Air Avenues
- Air Borne and Air Assault Objectives
- LZs and DZs
- Ranges of enemy systems
- Aerial TAIs
- Decision points

6. References: **FM 34-130,** ***IPB***, Appendix C; **FM 44-43,** ***BSFV Platoon and Squad Operations;*** **FM 44-64,** ***FAAD Battalion and Battery Operations;*** **TRADOC PAM 350-16,** ***Heavy OPFOR Doctrine***.

(TA.5.2.1 Collect Information on Situation)

TREND 8: Engineer involvement in brigade intelligence preparation of the battlefield (IPB).

PROBLEM: Engineer battalions are doing little to define the battlefield environment.

RESULT: An inability to “see” the terrain severely restricts the brigade's ability to understand the battlefield situation.

Techniques:

1. The brigade S2, battalion S2, and assistant battalion engineer (ABE) should begin the IPB process prior to deployment to the theater. Develop the following items prior to deployment:
   a. Modified combined obstacle overlay (MCOO).
   b. Analysis of time and distance in mobility corridors.
   c. Engineer threat model, to include threat mines.
2. Further refine these initial estimates during reception, staging, and onward integration (RSOI) and combat operations.

(TA.5.2.1 Collect Information on Situation)

TREND 9: (LTP) Understanding of the Engineer Battlefield Assessment (EBA) process.

PROBLEM: Assistant brigade engineers (ABEs) and engineer battalion S3s do not fully understand the Engineer Battlefield Assessment (EBA) process.

- The engineer battalion S3 and ABE rarely develop a detailed EBA based on the initial division Warning Order (WARNO).
- The EBA is seldom developed prior to mission analysis so that it can be used in conjunction with the S2's development of the IPB.
- Most ABEs do not assist with terrain analysis. It is normally left to the S2.
- The engineer battalion S3 rarely helps the ABE with the EBA process.

Techniques:

1. **FM 5-71-3, *Brigade Engineer Combat Operations***, states that the assistant brigade engineer (ABE) has the responsibility for developing the engineer battlefield assessment (EBA).
   a. It lays out specific requirements for the development of the EBA.
   b. Chapter 2 states that the EBA consists of three parts, all of which must be analyzed in detail:
      - terrain analysis
      - enemy mission
      - Mobility/Survivability (M/S) capabilities, and friendly mission and M/S capabilities.
2. To get the desired detail in the EBA, the ABE should begin immediately following the receipt of the initial WARNO.
3. The engineer battalion S3 should assist in and review the EBA.
4. Understand the significance of a timely and detailed EBA: It is the basis for the entire intelligence preparation of the battlefield (IPB) process.

(TA.5.2.1 Collect Information on Situation)

TREND 10: (LTP) Using Terrabase products to meet terrain analysis requirements.

PROBLEM: Engineers across the brigade are now commonly using Terrabase II and are routinely analyzing the effects of terrain and assessing the impact on military/engineer operations. Unfortunately, Terrabase II has not been distributed throughout unit staffs. Thus, most primary staff officers who do not have the program, or who are unfamiliar with the program, are either doing the old "stubby pencil" line-of-sight (LOS) diagrams, or completely

ignoring their internal 'analysis of terrain' responsibility. Most staff officers do not know that Terrabase II can create three-dimensional representations of terrain and provide LOS profiles for placement and locations of weapons, radar, and radios.

Techniques:

1. The most important step in the engineer battlefield analysis (EBA), as defined in **FM 5-71-3, *Brigade Engineer Combat Operations (Armored)***, page 2-16, is the *Terrain Analysis*. **FM 101-5** refers to it as terrain visualization. Even though terrain analysis is an engineer responsibility, it is also an individual staff officer's responsibility, because the assistant brigade engineer (ABE) and the task force engineer rarely have the time or knowledge of system capabilities to properly analyze the terrain for every system.

2. As of Oct 97, Terrabase II became available to the Army as a whole. You can now receive it simply by requesting it from Fort Leonard Wood.

(TA.5.2.1 Collect Information on Situation)

TREND 11: (LTP) Air defense officer (ADO) development of the aerial IPB.

PROBLEMS:

1. The ADO rarely understands the required time to adequately develop the aerial IPB and rarely gets his analysis incorporated into the maneuver S2's IPB prior to mission analysis or COA development.

2. ADOs have a tendency to wait until receipt of a formal order from higher headquarters before they begin the process. They rarely begin the process based on a warning order (WARNO).

Techniques:

1. The brigade ADO should be able to develop the aerial portion of the IPB prior to mission analysis upon receipt of the division WARNO, which provides the area of operation (AO), an enemy lay-down, the mission, and the higher headquarter's mission and intent.

2. Refer to **FM 44-100, *Air Defense Operations***, which has dedicated Appendix A to the aerial IPB process. It emphasizes that the aerial IPB is an integral part of the IPB process at all levels. The aerial IPB results in a predictive analysis of when and where the brigade will most likely see enemy air.

(TA.5.2.1 Collect Information on Situation)

TREND 12: (LTP) Light infantry task force knowledge of the enemy.

PROBLEM: Light infantry task force staffs are too often unfamiliar with enemy tactics and composition. S2s and staff members struggle with the current threat model throughout their planning exercise.

Technique: There are several Krasnovian threat documents available through LTP, the OPFOR, **CALL Quarterly Bulletin 97-4,** ***Decision Point Tactics***, **TRADOC Pamphlet 350-16**, and **FM 100-60**. Commanders must familiarize their staffs to understand the Krasnovian threat prior to an NTC deployment.

(TA.5.2.1.1 Collect Threat Information)

TREND 13: (LTP) Mechanized task force development of the Intelligence Preparation of the Battlefield (IPB). Mechanized task force staffs are not developing IPBs with sufficient detail.

PROBLEMS:

1. Products produced do not provide the task force commander with sufficient information regarding the terrain and friendly/enemy use of that terrain.
2. Little emphasis is placed on developing a viable IPB prior to mission analysis. RESULT: A flawed commander's guidance that pays little credence to the terrain in the area of operations and no credence to the terrain in the area of interest.
3. Senior staff members (XO/S3) do not insist on each staff member participating in the IPB process. The mission is normally given to the most inexperienced member of the staff…the S2. Even if the S2 understands OPFOR tactics and techniques, he has neither the time nor resources to produce all the required products.
4. Staffs do not analyze weather. It is usually given in the mission analysis brief as a "weather forecast."
5. Staffs do not analyze terrain, state whether each terrain feature has a positive or negative effect on the mission, or develop threat models based upon the terrain.
6. Staffs do not come to LTP or the NTC with the products to complete a good *assessment of the threat.*
   a. Few staffs create and bring with them different threat models based upon terrain and missions.
   b. They fail to identify HVTs and where/when they will appear on the battlefield.
   c. The targeting process is usually nonexistent due to the FSO's lack of involvement in the IPB.
   d. Few staffs develop possible enemy COAs based upon the terrain and OPFOR doctrine.
   e. Staffs fail to develop SITEMPs for those COAs prior to arrival at NTC. SITEMPs can be modified easier than starting from "scratch" after their arrival.
   f. Units do not develop operational control graphics until late in the planning process. Operational graphics usually do not support flexibility and simplicity based upon enemy, actions, reactions, or counteractions.
7. Commander's guidance is normally weak and very general. Few understand the tactical necessity of a thorough IPB, and base their guidance on a faulty mission analysis brief that is lacking in a detailed analysis of the enemy and terrain.

Techniques:

1. Task force staffs must prepare for their NTC rotation at Home Station. This includes developing threat templates/models and doing a thorough terrain analysis of each corridor.

a. A simple MCOO does not provide the necessary detail.

b. The terrain at the NTC is not going to change, and the way the enemy fights will change very little. The missions will remain somewhat similar to those in the past. With the advent of terrain analysis computer programs, units can accomplish a detailed library of the NTC terrain.

2. The complete staff can accomplish a large portion of any mission analysis prior to their arrival. Staffs know the facts and they certainly have the ability to make assumptions. Some suggested techniques follow:

a. Task force engineers should accomplish a detailed terrain analysis of each NTC corridor using computer programs. Early identification of advantageous terrain is critical. This procedure must include identification of inter-visibility lines that can provide a platoon fire and maneuver advantage. The same procedure can be used to develop observation plans and enhance the effects of all BOS.

b. S2s should develop threat models based upon the different missions that occur at the NTC. Those models must be related to the terrain in the different corridors. The models could then be transferred to templates, which could provide staffs with enemy COAs and lessen the time required to produce a good SITEMP.

c. Task force S3s can develop flexible but simple operational control graphics. Each unit can tailor those graphics to fit a specific mission. It would also provide a common base from which other graphics could be tailored to the scenario. This should eliminate the current trend of "reinventing the wheel" for each rotation.

d. Air defense officers (ADOs) can easily identify air corridors by doing a Home-Station terrain analysis of each corridor.

e. High-value target (HVT) lists can be produced at Home Station and incorporated into threat models. Planned position areas (PAs) can be templated based upon the existing models, and perhaps Copperhead use will become a norm instead of a rarity. The FA community cannot continue to place the use of Copperhead in the "TOO HARD TO ACCOMPLISH" task category.

f. Task force commanders should develop a detailed commander's guidance checklist. The commander cannot expect to provide precise guidance based upon a 30-minute mission analysis brief. He must have assistance in this endeavor. A good checklist can provide that assistance.

g. S2s must understand the effects of weather in relation to the terrain, enemy, and mission. The effects of the sun, wind, inversion times, etc., are critical at certain times and in certain locations. The S2 must explain the advantages and disadvantages of the predicted conditions.

(TA.5.3 Process Information)

TREND 14: Task Force (TF) S2 terrain analysis. TF S2s often inadequately analyze the terrain in sufficient detail.

PROBLEMS:

1. TF S2s accurately depict enemy avenues of approach (AA) into their sectors/zones; however, they are *not maximizing the MCOOs and other products* for terrain analysis.

2. S2s identify enemy kill sacks, potential friendly engagement areas, defensible terrain, and specific system and equipment locations but *do not integrate their product with the task force engineer*.

3. S2s do not routinely use the Terrabase products or the 1:24,000 scale maps.

RESULT: The commander and staff are denied opportunities to exploit the terrain when determining friendly and threat COAs.

Techniques:

1. S2s should train to produce detailed terrain analysis using Terrabase products and 1:24,000 scale maps. Use of these products would allow the commander and staff to "see the terrain" in greater detail prior to mission execution.

2. S2s should guard against making general assumptions regarding the "open terrain" in the desert.

3. TF S2s must improve in their ability to articulate how the terrain will impact COAs. S2 use of terrain analysis during mission analysis and COA development would greatly improve both their and the S3 threat and friendly COAs products.

(TA.5.3.2 Evaluate Physical Environment Information)

TREND 15: (LTP) Responsibility for terrain analysis. Brigade staffs are currently unclear as to who has the responsibility for terrain analysis.

PROBLEMS:

1. Most brigades have given this responsibility to either the S2 or the assistant battalion engineer (ABE). Some units require the ABE to provide the terrain analysis brief during mission analysis while other commands require the S2 to fulfill this responsibility.

2. The terrain analysis has historically been an S2 function but with the advent of the engineer battalion TOC collocated with the brigade main, additional staff planning support can be levied from the engineers.

Technique: Give the ABE the responsibility for terrain analysis as a matter of SOP. The engineers routinely use and have terrain analysis tools, such as Terrabase and WINCATS. However, this responsibility must be identified early on and trained at Home Station. By routinely employing the ABE and the engineer TOC for terrain-related products, this association will become SOP.

(TA.5.3.2 Evaluate Physical Environment Information)

TREND 16: Event templates and matrices.

PROBLEMS:

1. Task force S2s are generally not producing their event template or event matrix.

2. Those that are produced are incomplete.

3. S2s do not understand the use of the event template or items incorporated on the event template.

RESULTS:

1. S2s do not include a friendly COA development product.
2. S2s omit the R&S Plan product.

Techniques:

1. TF S2s must learn the importance of the event template. They cannot delete this step from the planning process.
2. Read and comply with **FM 34-130**. Phase lines, NAIs, and enemy decision points are critical to friendly COA development.
3. Use the event matrix as a companion to the template. Use of the event matrix should also help distinguish between the enemy COAs.
4. Conduct **Home Station** drills to develop the S2 section.

(TA.5.3.4.1 Develop Enemy Intentions)

TREND 17: Enemy Course of Action (ECOA) development. Task force S2s seldom develop several enemy courses of action (COAs). This is most often not because of a lack of competence on the part of the S2, but rather a result of a restricted planning timeline. S2s are only allowed sufficient time to develop one threat COA, and the staff has no appreciation for the various avenues of approach or forms of contact available to the enemy.

RESULT: The enemy executes a different COA than what is planned for by the task force. The task force does not have the systems in place to defeat the threat and is unable to react to it in a timely manner.

Techniques:

1. The task force S2 should coordinate with the brigade S2 for early receipt of the situation template (SITEMP) to allow for more time to develop task force level threat COAs.
2. The S2 must use a checklist to cover all combat multipliers, identifying the capabilities of enemy ADA, indirect fires, and engineers on the SITEMP. This will help the task force plan for various encounters with threat forces during the battle.
3. S2 sections must practice staff drills at **Home Station** so that SITEMPs are produced in a timely fashion to address all forms of contact.
4. Develop numerous threat COAs on concept sketches to give the battle staff an opportunity to visualize the threat and plan accordingly.

(TA.5.4.2 Prepare Reports on Enemy Intentions)

TREND 18: (LTP) Updating situational templates (SITEMPs).

PROBLEM: While developing updated SITEMPs, S2s often do not differentiate between the *confirmed locations* and situationally *templated* gaps in known intelligence.

RESULT: The staff is led to develop plans to counter a threat that may not be at that specific location.

Technique: Identify this shortfall to the S2. The S2's subsequent SITEMP updates can define the differences using dotted lines for templated positions and solid lines for confirmed positions.

(TA.5.4.4 Prepare Reports on Enemy Situation)

MANEUVER BOS

(Trends are numbered sequentially for cross-reference and are not in any priority order.)

Needs Emphasis

TREND 1: Use of dismounted infantry squads. Mechanized infantry and armor company/team commanders often do not adequately plan for the use of infantry squads with mounted forces in either offensive or defensive operations.

PROBLEMS:

1. Infantry squads slow the tempo of the operation.
2. Infantry squads have insufficient Class V (i.e., AT weapons, hand grenades, and machine gun ammo) as well as inadequate obstacle breach kits to make them effective for their assigned task.
3. Infantry squads lack effective communication methods.
4. Infantry squads create a safety hazard when moving among maneuvering vehicles (being run over or fratricide from mounted weapons, to include sabot petals).
5. The company team commander does not identify the best enemy target for the infantry squads (i.e., enemy infantry, ambush sites, reconnaissance patrols or observation posts) or plan dismount, remount, or deployment locations.
6. Infantry squads only provide close-in support to the Bradley Fighting Vehicles (BFVs).
7. Infantry squad leaders lack experience, and squads have worked together for less than 90 days.

RESULTS:

1. Mechanized infantry squads are repeatedly destroyed (usually while on board their BFV) through insufficient planning and rehearsals, a disregard for needed support, and hasty execution during the battle.
2. The role of mechanized infantrymen is in jeopardy as generations of BFV squads do not meet minimum MTP standards for performance or train to their capabilities as prescribed **in FM 7-7J** and **FM 71-1**.

Techniques: The most effective infantry squad is one that has the support of the task force commander and planning attention of the company commander. The remainder of the armored force can only benefit from the successes of infantry actions. Mechanized infantry and armor commanders at all levels must train and employ infantry squads to reverse this trend. Task force commanders must meet the challenge of planning employment of the infantry in conjunction with mounted forces. The following recommendations address the most often heard excuses:

1. *Infantry squads slow the tempo of the operation.* Plan the operation at task force for the infantry squads to have a specific task and purpose to support the task force commander's intent. Each mechanized infantry company can support the deployment of its own infantry squads if they are given an attainable task and purpose. Mechanized infantry platoon capabilities and

limitations are given in **FM 71-1** (26 Jan 98) on pages 1-7 and 1-8. The missions that mechanized infantry squads execute successfully most often are:

- Task: Clear a defile. Purpose: To destroy enemy overwatch elements and facilitate movement. This operation succeeds with BFV support, a detailed, repetitious rehearsal of the actual clear mission, a resourced fire support plan, and engineer squads supporting the ground force (See ***CALL Quarterly Bulletin 97-20,*** "The Defile Breach: TTPs").

- Task: Suppress a motorized rifle platoon. Purpose: To prevent fires on the main effort. This task includes securing a FO team to adjust indirect fires (to include smoke) onto the point of penetration and/or breach point. This mission also supports an infiltration by the infantry. The endstate for this mission is that enemy forces overwatching a key area (entrance to a chokepoint, an obstacle, a flank of the BP, etc.) are destroyed, suppressed, or obscured (See ***CALL Quarterly Bulletin 96-1***, "Route Clearance Operations: Using Dismounted Infantry In The Attack").

- Task: Establish an OP. Purpose: To provide indirect fires and reconnaissance on the enemy forces. This surveillance mission secures a FO party to direct accurate artillery fires or CAS and uses infantry squads to secure the position and repel counter-recon forces.

- Task: Destroy enemy recon forces. Purpose: To prevent detection of the main body. This mission is an active patrolling operation. Most often, the walls of the main maneuver corridors are not patrolled with any regularity. An infantry patrol, with an indirect fire plan resourced with task force mortars, will detect and destroy enemy recon assets. Patrols can also culminate the morning of the fight in an OP to report progress of attacking forces forward of the BPs (See ***CALL Quarterly Bulletin 96-7***, "The Mechanized Counter-recon Battle: A Company Team Perspective").

2. *Infantry squads have insufficient Class V (i.e., AT weapons, hand grenades, and machine gun ammo) as well as inadequate obstacle breach kits to make them effective for their assigned task.* Infantry leaders must anticipate, request, and follow-up on the types of Class V they need to succeed. "MRE-bag" hand grenades (manufactured IAW NTC ROE) are often forgotten. Demolitions kits are frequently inadequate despite implied tasks for infantry squads to breach in the absence of engineer support. Task Force S4s must relentlessly request support to infantry squads if they are going to accomplish their task and purpose.

3. *Infantry squads lack effective communication methods.* Provide a SINCGARS radio to each squad or infantry unit operating out of the BFV to communicate with the mounted element, using the AN/PRC 126s for inter-squad and platoon traffic. Radios can be the most effective weapon for a squad, especially if properly placed. Also, when vehicles are destroyed, it facilitates the squad's extraction from the battlefield.

4. *Infantry squads create a safety hazard when moving among maneuvering vehicles (fratricide).* This myth has frozen mounted commanders in fear for years. Proper rehearsals, graphic control measures, redundant communications, understanding of surface danger zones and control of the moving infantry element reduce the hazard of individuals moving among vehicles. This reiterates the need for task force commanders to rehearse dismounted actions at task force rehearsals to increase awareness of all leaders.

5. *The company leadership did not identify the best enemy target for the infantry squads (i.e., enemy infantry, an ambush site, enemy reconnaissance) and did not plan dismount or deployment locations.* Commanders did not identify the most vulnerable target for the infantry.

A well-positioned infantry force often goes undetected in the midst of a mass of armored vehicles, exposing the enemy to the infantry before they can protect themselves. Enemy infantry most often outnumber friendly infantry, which makes them an unfavorable target to engage. Early in the IPB process, look **first** for targets that will be vulnerable to infantry and plan to support their employment against those targets.

6. *Infantry squads only provide close-in support to the BFVs*. The role of the BFV is to support infantry rifle platoons and squads (**FM 7-7J**, pg.1-2), yet commanders are constantly reversing it. **FM 7-7J** is written with that basic assumption in mind; do not confuse the definition and it will prevent confusion on the battlefield.

7. *Infantry squad leaders lack experience, and the squad has only worked together for 90 days or less.* Basic infantry drill training and communication are the key ingredients needed to produce an effective fighting force. Training at NTC will provide the opportunity to hone the rest of the squad's skills.

(TA.1.1.1 Position/Reposition Forces (Units and Equipment)

TREND 2: Task force use of dismounted infantry.

PROBLEM: Task forces do not effectively use their dismounted infantry. They normally *always* plan for the use of their M2 Bradleys, but if they plan for the use of dismounts, it is usually an afterthought.

Technique: Lack of emphasis on use of dismounts is often due in part to manning shortfalls in mechanized units. However, even those units that are above 80% in manning have generally not trained to utilize their dismounts in their doctrinal role. Units should conduct **Home Station** exercises which include planning for and employing dismounted infantry.

(TA.1.1.1 Position/Reposition Forces (Units and Equipment)

TREND 3: Actions on Contact. Units too often become quickly combat ineffective upon contact with the enemy.

PROBLEM: Units have exhibited a general inability to execute their plans effectively. This is especially true once the unit is in direct fire contact with the enemy. Once in contact:

- Units do not use the terrain to their advantage.
- Units do not make full, effective use of fires, smoke, and other combat multipliers.
- Units are invariably "surprised" when the actual enemy disposition is not exactly what they had envisioned in the planning process.

RESULT: Rapid attrition and mission not accomplished.

Techniques:

1. Units must not rely on the planning process to arrive at the best tactical solution. Branch schools should emphasize that effective use of *METT-T should drive the planning process*. The doctrinal processes themselves will not ensure tactical success. They are only effective if the planners and commanders first understand the nature of the battlefield (METT-T).

2. Units must get to the field for frequent, routine **Home Station** training at company/team

and task force levels. Until we educate our commanders on the true nature of the battlefield and afford them the opportunity to work with their units in a realistic environment, no process will produce success.

(TA.1.1.2 Conduct Close Combat)

TREND 4: Attack Helicopter Engagement area development. The overall goal of attack helicopter operations is to destroy enemy formations in a given engagement area. To accomplish this goal, the battalion staff must understand and exercise the eight step engagement area development process (**FM 1-112**, chapter 3).

PROBLEMS:

1. Units commonly fail to conduct appropriate IPB which causes the attack unit to "miss" the enemy in the indicated engagement area.
2. Units commonly fail to properly integrate the massed effects of direct fire systems with other battlefield operating systems (BOSs) in the engagement area.

RESULT: The effectiveness of the attack helicopter unit is significantly reduced.

Techniques:

1. The resources expended and risks associated with attack helicopter operations are substantial. From deep attacks behind a mature enemy front line trace (EFLT) to attacks against first echelon forces in the main battle area (MBA), *success is based on detailed planning and development of the engagement area*.
2. Although the process involves eight steps, the following paragraphs highlight two steps which are commonly neglected.

a. <u>STEP 1 - IPB</u>: The S2 begins the process of IPB given primary and alternate engagement areas.

1) The S2 should concentrate, initially, on answering the following five questions, which, when answered, will yield the enemy's most probable COA:

- Where is the enemy currently located?
- Where is the enemy going?
- Where can we best engage the enemy?
- When will the enemy be there?
- What weapons systems does the enemy have that can affect the unit?

2) It is imperative that the S2 provide the best prediction possible of where the enemy will go. This provides focus for planning and should lead to a primary COA with branches.

3) The S2 must also predict how the formation will look (i.e., number of vehicles, types of formations, march speeds, etc.) during movement through NAIs and on arrival at the engagement area.

4) Finally, the S2 must predict how the enemy will react at TAIs and under direct fire in the engagement area. The S2 provides a description of these reactions (in detail) while wargaming integration of the engagement area.

5) Upon determination of where the unit should attack the enemy, the S2 must quickly determine the collection assets that are available. The S2 considers the following:

- Sensor capabilities (accuracy, required redundancy, etc.).

-- Higher headquarter's collection plan and priorities for sensors.

-- Sensor scheduling (do the JSTARS, UAV, SOF, etc., schedules coincide with the attack unit's requirement for coverage?)

-- Is there real-time down link to the requesting unit?

-- Is there overlapping coverage on critical NAIs, and do we have the capability to shift sensor orientation as the formation proceeds to subsequent NAIs?

- Where is the intel handover line (where will higher headquarters hand over the NAI tracking responsibility to the attack unit? This is critical in determining scheme of maneuver).

- Do the NAIs support Redcon level upgrades?

-- Do the NAIs support time/distance requirements from the AA/HA to initial ABF positions?

-- Are NAIs covered by ground maneuver brigade assets, and, if so, do we have appropriate links?

6) Answers to these considerations allow the S2 to establish a realistic decision support template for employment of the attack battalion.

b. <u>STEP 2 - Integration of the engagement area</u>: In short, adequate integration of the engagement area ensures all available BOS assets are considered and employed to ensure maximum destruction of the enemy formation at a given engagement area.

1) Intelligence: As discussed earlier, the S2 must provide accurate predictions of how the enemy formation will look when it enters the engagement area. The S2 must be prepared to present enemy actions during the staff's wargame of events at the engagement area:

- Rates of march (how long the enemy will be visible).
- Key terrain (that affords enemy advantages for specific avenues of approach).
- When and how the enemy will conduct counter-engagements.
- When and where indirect fire can affect attack-by-fire positions.
- Where the dead space is in the engagement area.

2) Maneuver: The battalion S3 determines where and when direct fire systems can best be used against the enemy formation the S2 describes.

- The S3 establishes initial attack-by-fire positions at a primary weapon range (i.e., Hellfire missile) that will ensure a 75% probability of hit (Ph).

- The S3 must consider alternate and subsequent attack-by-fire positions in the objective area.

- If ground maneuver forces are attached or OPCON and will attack into the same engagement area as air maneuver forces, then the S3 must consider fire distribution and deconfliction of fire between the two forces.

- Finally, the S2 and S3 wargame friendly actions versus enemy reactions and determine where in the engagement area artillery, CAS, mortars, obstacles, etc., are needed to shape the battlespace for the direct fire fight.

3) Following the wargame: The following questions must be considered:

- What is the end state of the indirect fire plan?

- How much artillery/CAS/mortars are available for employment in the engagement area?

- Who will initiate fires?
- How will the unit shift fires?
- Who will clear fires once the direct fire fight begins?

4) Additional considerations: The staff must also consider and integrate the company commander's direct fire plan from given attack-by-fire positions and the effects of obscurants in the engagement areas.

5) Extended range deep attacks: Employment of joint nonlethal EW may be the only direct fire complement to the extended range engagement area. Commo and radar jamming can be very effective in and around the engagement area, particularly during ingress to initial attack-by-fire positions and attack of critical ADA targets and in support of movement to subsequent attack-by-fire positions.

3. Attack battalion staffs should practice wargaming engagement areas using large scale terrain models.

a. The FSO should be a participant during the wargaming so he can provide answers early for what indirect fires can and cannot do.

b. After the unit feels comfortable with the general concept on a terrain model, they should practice on cartoon sketches which represent terrain, ABFs, enemy formations, etc.

c. As an end state, the staff should be able to wargame the engagement area using a 1:50,000 map.

d. While practicing the wargame technique, the staff should record techniques that work best.

4. The S2 should keep a battle book of sensor capabilities and enemy orders of battle to expedite the IPB process.

5. The FSO should record potential essential fire support tasks that become evident during practice engagement area wargaming.

(TA.1.2 Engage Enemy)

TREND 5: Company/team use of direct fires during offensive missions.

PROBLEMS:

1. In the offense, company/team commanders seldom conduct advanced planning for the use of direct fires during maneuver.

2. Commanders have only graphic control measures to control fires.

RESULT: Commanders must attempt to execute supporting fire while in contact.

Techniques:

1. The focus of offensive fires is to control and distribute those fires while on the move against a generally static enemy. Company/team commanders must have an offensive fire plan to maximize the principles of direct fire and allow the commander to focus, distribute, and shift fires (see **FM 71-1**, Chap 2&3**; FM 17-12-1/2; FM 23-1; CALL Special Study Mar 98, *Closing With The Enemy*,** and **SH 7-45**, available through the CALL homepage).

2. Company/team commanders can control offensive direct fires with the same tools that are used in the defense:

a. Engagement areas (EAs)

b. Target reference points (TRPs)
c. Fire patterns
d. Fire commands

3. The offensive fire plan should provide the company/team commander the ability to orient his force and transition it from a moving force to a base of fire and maneuver.

a. There are several techniques that can assist the commander in planning and controlling his direct fires, including:

- Sectors
- Quadrants
- Target Array
- Closest TRP
- Fire Patterns
- Grids

b. The first four techniques use TRPs to control fires.

- TRPs assist in focusing fires on a point, on multiple points, or an area.
- They may be oriented on either enemy or terrain.
- They are preplanned to support the scheme of maneuver.
- Some TRPs are planned on enemy positions or surrounding terrain to focus platoon fires against the enemy. Others are planned on terrain features throughout the zone of attack. This allows flexibility controlling fires if the actual enemy disposition does not match the SITEMP, or in the event of chance contact.

(TA.1.2.1 Employ Direct Fire)

TREND 6: Use of BFV-mounted TOW. Units seldom capitalize on use of TOW launchers mounted on M2 Bradley Fighting Vehicles (BFVs).

PROBLEM: TOW fires from M2s account for relatively very few kills when compared to tank and 25mm fires. The inadequacy of the MILES II TOW apparatus for the M2 is a contributing factor; however, the main reason for so few kills, according to statistics in AARs, is that units rarely *attempt* to engage with TOWs. The few units that show some success in killing with TOWs do so because they *plan for it*.

Procedure: Recommend the Infantry School place more emphasis on the employment of Bradley TOWs to kill enemy tanks.

(TA.1.2.1 Employ Direct Fire)

TREND 7: Use of Bradley Stinger Fighting Vehicle (BSFV) in ground support role. Bradley STINGER Fighting Vehicle (BSFV) platoons too often do not adequately integrate with company/teams to perform their secondary role of defense of battle positions.

PROBLEM: BSFV squads usually do not integrate into the direct fire plan of the company/team battle position with which they are positioned. Consequently, they do not coordinate for sector sketches, target reference points (TRPs), trigger lines, or assigned sectors.

Technique: BSFV squads should integrate by coordinating with company/team commanders and their platoon leaders. Squads should receive assigned sectors, TRPs, trigger lines, and a task and purpose to be achieved at the TRPs. BSFV squads will then have recognizable triggers for efficient self-defense fires and enhance the company/team direct fire plan in a ground role if necessary.

(TA.1.2.1 Employ Direct Fire)

TREND 8: Maneuver unit understanding of enemy engagement areas and actions on the objective.

PROBLEMS:

1. Company/team commanders have difficulty providing graphic representation of enemy engagement areas to their platoons.
2. The company/team is normally still moving on the battlefield when they receive first contact from the enemy main body.

RESULTS:

1. There is an immediate breakdown in command and control as individual vehicles and platoons begin to react to contact from the march.
2. Once the commander and platoon leaders regain control of their elements, the company has been fixed, loses combat power, and is unable to accomplish its mission.

Techniques:

1. The unit commander must paint the picture for his subordinates! He must build a *mental* and *physical* picture of the enemy's battlespace/engagement area (or "red zone") beginning in the planning phase.
   a. He develops and refines the actual location of vehicles and enemy positions from reports prior to crossing the LD.
   b. *He must transmit these updates with graphics and FRAGOs to subordinates.*
2. Plan. The commander combines the range arcs of all potential enemy locations and designates the enemy's kill-sack during the development of his order.
   a. He refines the S2's threat COA:
      - Plans for visual contact and when and where it will occur.
      - Plans the ranges from likely security zone locations.
      - Plans likely locations for enemy air and NBC agents to be used.
   b. He analyzes his portion of the fight and begins building maneuver transition locations (probable lines of deployment, checkpoints, or phase lines). These will aid in the deployment of his force from the march.
   c. The commander then focuses on actions on the objective from this line into the enemy rear or to the LOA.
3. Prepare. *Rehearse the transition* from ***movement*** to the company/team ***maneuver*** (platoons in overwatch; platoons bounding) and then analyze terrain in depth to determine where advantage over the enemy can be gained.
   a. The company will already be within direct fire range and must act independently; its platoons must maneuver without excessive guidance once they reach the enemy "red zone" (the

"red zone" fight equals actions on the objective). Plan for enemy air and artillery to attrit the company.

b. Rehearse several approaches as contingencies tied to decision points and what criteria would cause the plan to change.

c. Ensure the plan is rehearsed on a very detailed terrain board and then reinforced, time permitting, with a key leader rehearsal or full rehearsal (see ***CALL Newsletter 98-5, Rehearsals***).

4. Execute.

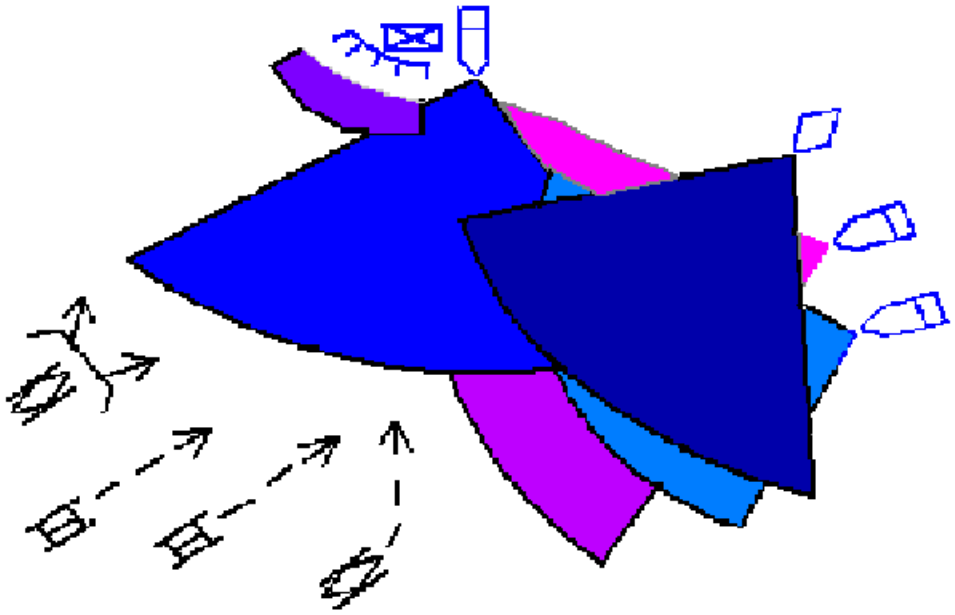
a. Prior to LD, with all reported enemy locations and disposition at his disposal, the commander releases a final graphic, using actual enemy positions to represent the "red zone" (see example below).

b. He issues a FRAGO with any last instructions, and selects the company maneuver transition point. This may be a location of the last covered and concealed spot prior to the enemy's "red zone," or a criteria (i.e., two or more tanks engage lead platoon).

c. Once in the enemy's "red zone," all platoons move deliberately but with coordination conducted over company radio net to ensure maximum, focused firepower.

d. The commander deconflicts maneuver space with adjacent companies.

e. The XO reports situation to the task force (TF).



Sample enemy "red zone" graphic.
The company/team maneuver and actions on the objective begin just beyond where the enemy main body can influence the unit.

(TA.1.2.2 Conduct Close Combat)

TREND 9: Engineer unit close combat operations. Engineer units are arriving at the NTC untrained for close combat operations.

PROBLEMS:

1. Units are consistently unprepared to engage and destroy the enemy.
2. Rehearsals do not focus on what the enemy can do or what the plan is to react to his action.
3. Simple breach drills are not preceded by tracks rolling up with M2s (.50 cal) laying a base of fire to provide the breaching element the best form of suppression immediately available.
4. Reacting to **any** form of contact seems foreign to most units and unimportant.

Procedure: All levels of institutional training for engineers should receive a block of instruction that takes the battle focused training methodology down to their level. The focus should be the combat tasks associated with fighting as engineers.

(TA.1.2.2 Conduct Close Combat)

TREND 10: (LTP) Light infantry task force employment of heavy forces. The light infantry task forces do not conduct sufficient planning for the employment of OPCON heavy forces.

PROBLEM: Graphics lack the necessary control measures to reposition heavy forces during combat operations. When the light infantry task force maneuvers the heavy forces, it results in

confusion as to where the heavy forces were to go. Valuable time is usually wasted trying to communicate task and purpose for the repositioning heavy force.

Techniques:

1. Consider having an armor officer serve as a LNO to the light task force staff during light-heavy rotations.
2. Have more detailed discussion on employment of heavy forces during light-heavy classes at LTP.

(TA.1.4 Integrate Direct Fire with Maneuver)

FIRE SUPPORT BOS

(Trends are numbered sequentially for cross-reference and are <u>not</u> in any priority order.)

Positive Performance

TREND 1: Use of maneuver observers within the task force to request fires. Units have improved at using their new equipment (MELIOS, PLGR) to provide "first-round fire-for-effect" target locations. When fire support teams (FISTs) become casualties, most units have backup maneuver observers identified and in position. The backup observers can aggressively request fires with accurate target locations.

Technique: Units need to maintain an active **Home Station** maneuver observer training program. FSOs should help train platoon leaders, platoon sergeants (PSGs), and scouts in the TSFO and reinforce it by having them request fires during mortar shoots.

(TA.2.2 Engage Ground Targets)

Needs Emphasis

TREND 1: Fire Support Observation Plan. Observation plans very often lack sufficient detail to provide the company fire support team (FIST) a focus for planning, preparing, or executing their mission.

Technique: The observation plan, as an integral part of the fire support plan, should provide the task and purpose for each observer by phase of the operation. As part of the scheme of fires worksheet, the following format may be useful:

FIRE SUPPORT OBSERVATION PLAN

	PHASE 1	PHASE 2
FS EVENT		
Task		
Purpose		
Trigger		
Observer		
Method		
Remarks		

This focus enables the company FIST to plan, conduct appropriate pre-combat checks/pre-combat inspections (PCCs/PCIs), and execute their mission according to the task force (TF) commander's intent.

(TA.2.1.1 Select Target to Attack)

TREND 2: Fire support observation plan and target location.

PROBLEMS:

1. Task forces experience difficulty developing and executing an observation plan to support essential fire support tasks (EFSTs), the scheme of fires, and the scheme of maneuver.
2. Observers frequently commit errors in observed fire procedures resulting in inaccurate target locations.
3. The FSO frequently does not synchronize the observer plan with the scheme of maneuver during the wargaming process.
4. Company/team level refinement of the observer plan does not always happen.
5. Rehearsals are frequently inadequate.

RESULT: Fire support teams (FISTs) have difficulty getting into position at the right time and place to acquire the enemy before the task force finds itself decisively engaged in the enemy commander's battle space.

Techniques:

1. Maneuver commanders must maintain the tactical patience necessary to allow observers to get into position and execute their assigned task and purpose, in order to set conditions for maneuver. **FM 6-71** states that company/team commanders are the executors of the plan. FISTs are the maneuver commander's precision target acquisition assets. Success can be achieved with top-down planning, bottom-up refinement, and decentralized execution.
2. Construct an observer plan in concert with the S2 and S3, and use Terrabase computer programs to assist in position selection. This provides the detect functions of the targeting process IAW **FM 6-20-10**.
3. The task force FSO must plan to have observers in position to support the maneuver commander's decisive point and each essential fire support task (EFST). Address where they need to be, security, communications, and how they will get there.
    a. Remember that forward observers (FOs), scouts, COLTs, and maneuver shooters are viable observers to utilize. Consider employing the reserve company/team FIST as a task force COLT (a doctrinal option in **FM 6-20-20**).
    b. If an observer must be in position to see the commander's decisive point or EFST, then the maneuver commander must be willing to commit the assets necessary to get the observer into position.
4. Synchronize the observation plan with the scheme of maneuver during the *wargame*. To do so, you must have a thorough terrain analysis coupled with a complete understanding of the enemy's capabilities that define the enemy commander's battle space. The task force FSO provides the top-down plan that is refined by company FSOs in conjunction with company/team commanders.

5. The plan must be *rehearsed* during both task force and company/team rehearsals.

6. Initiative, cross talk, and coordination between FISTs are imperative during execution.

7. Observers must employ their precision target acquisition equipment IAW the appropriate TMs and follow the observed fire procedures in **FM 6-30** for manual target location.

(TA.2.1.1 Select Target to Attack)

TREND 3: Field artillery development of engagement areas (EAs).

PROBLEM: Task force fire support officers (FSOs) and fire support teams (FISTs) do not adequately complete engagement area (EA) development during defense in sector missions. Specifically:

- Not all triggers are emplaced.
- Time distance factors for some triggers are miscalculated.
- Targets are not tied into obstacles.
- Not all primary and alternate observers can see triggers.
- Target area survey is usually inadequate.

Techniques:

1. The task force FSO should develop a scheme of fires to support the task force commander's decisive point. This includes:

   a. Observer planning.

   b. Target emplacement based on sighted obstacles.

   c. Target refinement based on the actual obstacle emplacement.

   d. Trigger emplacement - both tactical and execution (include limited visibility/ thermal).

   e. An EA mounted rehearsal.

2. Tasks must be prioritized with an established timeline and the status of preparation reported. This must be a coordinated effort between the task force FSO/FSE and company/teams. Execution can be centralized or decentralized.

3. The task force fire support sergeant is the SME and should supervise and coordinate the overall effort.

4. Trigger kits must be standardized and resourced.

   a. Time distance factors are different for an enemy moving during day and night, and response and shift times for mortars and artillery are different.

   b. Establish both tactical and execution triggers. Use procedures established in **FM 6-30** to achieve effective moving target engagement. Emphasis must be focused on emplacing tactical and execution triggers based on precision time distance factors IAW the moving target engagement procedures published in **FM 6-30**.

(TA.2.1.1Select Target o Attack)

TREND 4: Developing essential fire support tasks (EFSTs). FSOs are usually able to take the commander's guidance and develop the essential fire support tasks (EFSTs) and subsequent scheme of fires necessary to execute and successfully complete those tasks. However, FSOs seldom adequately allocate available resources or identify the required volume or duration of fires necessary to shape the battlefield and mass fires at the decisive point.

Techniques: EFSTs are refined from the commander's intent and guidance for fires. They form the foundation for the concept of fire support, for developing the COA for fire support, and for COA analysis, validation, and synchronization with maneuver (wargaming). EFSTs are identified as task, purpose, method, and end state:

1. TASK. Describes the targeting effect (a.k.a. targeting objective) fires must achieve *against a specific enemy formation's function or capability*. These formations are high-payoff targets (HPTs) or contain one or more HPT. Memory Aid: Task = Effect, Formation, Function. FM 6-20-10 (p.1-2) outlines several terms to describe targeting effects or objectives that can be used; however, disrupt, delay, or limit are most commonly used.

a. Disrupt means to preclude efficient interaction of enemy combat or combat support systems. More simply, it means to not let an enemy formation perform a specific function: not to do what it is supposed to do. (Example: "Disrupt the AT battery long range fires against the TF flank companies...")

b. Delay means to alter the time of arrival of specific enemy formation or capability. It focuses on not letting the enemy do some function when it wants/needs to. (Example: Delay the ability of the AGMB to support the FSE with direct fires until...)

c. Limit means to reduce an enemy's options or COAs. It normally focuses on not letting the enemy function where he wants. (Example: Limit the ability of the enemy air assault company to establish an LZ in the high ground west of the firebase....)

2. PURPOSE. Describes the maneuver or operational purpose for the task. Memory Aid: Purpose = maneuver purpose. This should identify as specifically as possible the maneuver formation that will benefit from the targeting effect and describe in space and time what the effect will accomplish. (Example: To allow our advanced guard company to destroy the FSE with direct fires before the AGMB arrives.)

3. METHOD. Describes how the task and purpose will be achieved. It ties the detect function or "observer" (COLT/scout/FIST/TA/IEW sensor) with the deliver function or "shooters" (lethal and nonlethal assets) in time and space and describes how to achieve the task.

a. For the observer, it can assign POF to execute the task outlined. It assigns FA or maneuver observers or other acquisition means. (The assignment of the observer requires the consideration of target selection standards.) When a specific asset (i.e., CAS) is to focus exclusively on a task, that information can be communicated here. For example, priority of CAS is to destroy the tanks in the enemy CAR. This part of the method can also provide focus by using NAIs, TAIs, targets, CAS target boxes, or engagement areas to describe where the attacks will occur.

b. For the shooter, it describes the allocation of fire support assets to accomplish the EFSTs. Assets may include artillery, mortar, or mechanical smoke, FA fires (suppress, neutralize, destroy, obscure, screen), FASCAM, CPHD, CAS, IEW jamming, and/or attack helicopters. In method, the artillery and other "Deliver" assets can identify their part of

accomplishing the EFST. It is from the method of an EFST that the FA and other FS/TA assets get their essential tasks.

c. The method can also outline any limitations or restrictions on accomplishing the tasks such as ammunition (i.e., no ICM on the objective), FSCM (i.e., ACA Blue in effect) or other restrictions that may affect the accomplishment of the EFST.

EXAMPLE:

COLT 1 (W/ETAC) (PRI) and COLT 2 (ALT) POF to attack AGMB. FA will emplace FASCAM in TAI 1 behind the FSE (AB 9000). FA will neutralize the lead MRC of the AGMB as it tries to breach or bypass the FASCAM (AB 2001). CAS will simultaneously attack the trail MRCs of the AGMB west of the FASCAM in CTB 1 or CTB 2. IEW will identify the ADA net and then jam it as the CAS departs the IP.

4. END STATE. Attempts to quantify the successful accomplishment of the task. If multiple shooters are involved, it helps delineate what each must accomplish. End state provides a measure of the point of task completion. It also provides a basis for assessing the situation and making the decision to re-attack or not.

EXAMPLE:

AGMB delayed in the pass for 20 minutes. FASCAM (400X400 SD) behind the FSE and in front of AGMB. One tank/four BMPs destroyed by FA behind FASCAM. CAS destroys four tanks/ two BMPs behind FASCAM. Enemy ADA command and control net jumps 5 + times during CAS attacks.

(TA.2.2.1 Conduct Lethal Engagement)

TREND 5: Mortar platoon use of directional orienting lines. Platoon leaders and platoon sergeants are not proficient in using an orienting station and the end of the orienting line provided by survey teams from the artillery battalion. Directional control is the most important element of survey.

Techniques.

1. When available, mortar platoons should use directional control provided by artillery survey teams to lay the platoon.
2. Seek the assistance of the task force FSO for the procedures listed in **FM 6-50**.

(TA.2.2.1.1 Conduct Surface Attack)

TREND 6: Mortar fire direction center (FDC) use of meteorological (MET) messages. Mortar FDCs are unfamiliar with the proper format, type, and procedures to validate a meteorological (MET) message.

Technique: Accuracy of mortar fires increases significantly with the use of a current and valid MET message during the computation of firing data. Seek the assistance of the task force FSO for the correct MET message format and MET validation procedures.

(TA.2.2.1.1 Conduct Surface Attack)

TREND 7: Mortar platoon conduct of unprepared occupations. Mortar platoons experience difficulty in conducting unprepared occupations as a platoon. As a result of METT-T, mortar platoons often operate as a platoon versus split section at some point during the campaign.

RESULT: Excessive ready-to-fire times.

Technique: Mortar platoons should aggressively rehearse unprepared occupations during day and night as both a platoon and section to achieve responsive ready-to-fire times.

(TA.2.2.1.1 Conduct Surface Attack)

TREND 8: FA Battery-level Paladin movement.

PROBLEMS:

1. Commanders often do not conduct proper preparation and planning for their tactical moves.
2. Commanders typically give little thought to control measures for ensuring timely, controlled tactical moves.
3. Most moves consist only of sending a move order to the guns with no thought of land deconfliction, boundaries, terrain, movement aids for limited visibility, reconnaissance, survey points, or movement control measures.

Techniques: Paladin movement requires great detail in planning and flexibility in execution. Commanders should look early for potential problems, define specific control measures for the movement, and then position key leaders where they can see and influence the movement.

1. Movement planning must begin during the commander's mission analysis. Even if battalion does not provide sufficient guidance for movement, this does not absolve the battery commander from planning movement in-depth to support his battery mission.
2. An initial examination of the scheme of maneuver, coupled with the Paladin zones provided from battalion, will give the commander a starting point for his maneuver plan.
3. The commander should look for obvious conflicts in the movement plan. By determining possible conflicts early, a commander can find solutions or work with battalion to modify the plan.
    a. Are several batteries taking the same route at the same time?
    b. Does the route given by battalion violate unit boundaries?
    c. Is there a specific route or is that left to the commander's discretion?
    d. Does the movement guidance conflict with the maneuver forces plan?
4. The commander must then make specific decisions concerning his planned movement.
    a. What type of formation will he use?
    b. Move by platoons or by battery?
    c. Move in a wedge or in column formation?
    d. Give a specific route or specify an axis of advance?
5. It is here that the gunnery sergeants can best assist the commander. The gunnery sergeants can easily place survey control points along the route if they know to do so in advance.

By conducting a route reconnaissance within limits of the tactical situation, the gunnery sergeants

can advise the commander on the terrain, routes, and possible conflicts. If ground recon is not possible, then the commander must conduct a detailed map recon.

a. How far will each movement take the battery?

b. When navigation updates be needed?

c. Who will provide survey support?

d. What are the specific triggers to initiate movement?

6. The commander then determines how best to pass his movement plan to his platoons. One successful method is to develop battery graphics and disseminate them while issuing the WARNO or OPORD.

a. Battery graphics need not be complicated. Some basic graphical control measures will help ease movement problems and add flexibility to the entire plan.

b. Graphics should include battery boundaries, routes, or axis of advance depending on how much movement control the commander needs, Paladin zones, survey control points and any start points, check points, or release points.

c. By getting these graphics down to the section chief level, the commander can ensure all leaders have an understanding of the scheme of maneuver and can allow him to issue FRAGOs based on the graphics should the situation change.

7. Control during the execution of the movement is no less critical than the planning phase. Commanders generally are good about using the gunnery sergeants to link in with the rear elements of the maneuver forces. This gives the commanders eyes forward while positioning themselves forward to make their own assessment of the movement.

8. Commanders should plan for contingencies in their scheme of maneuver. By planning alternate Paladin zones and alternate routes of march, the commander can easily shift his unit when the situation changes.

a. The ability of the Paladin to conduct “hipshoots” means the commander can support maneuver from almost all points of his march.

b. Specific essential field artillery tasks (EFATs), such as Copperhead or FASCAM, may require specific range or angle-T positioning factors. Alternate Paladin zones, developed during his mission analysis, allow the commander to quickly shift his forces into areas where he knows he can meet range requirements necessary to accomplish his EFATs.

(TA.2.2.1.1 Conduct Surface Attack)

TREND 9: Scouts integration into the task force fire support plan.

PROBLEMS:

1. Scouts too often do not receive adequate fire support while conducting their zone reconnaissance and counter-recon missions. Scouts cross the LD or screen without any responsive fires.

2. The task force mortar platoon is often out of range to support the scouts or "reserved" for supporting the task force attack or defense.

RESULT: Scouts end up taking unnecessary casualties and may not achieve their reconnaissance objectives.

Techniques:

1. Link the scouts to the task force FSO to receive responsive fires from either the DS artillery battalion or the task force mortar platoon. The scouts can establish a direct net to the task force FSO to request fire support. Mortars should be positioned along the LD or with the counter-recon force to support the scouts.

(TA.2.3 Integrate Fire Support)

TREND 10: Task force fire support integration with scheme of maneuver. Task force Fire Support Officers (FSOs) often do not conduct fire support planning outside the allocations of the established brigade fire support plan.

PROBLEMS:

1. Most *brigade* FSOs develop and disseminate detailed and directive fire support plans based on essential fire support tasks (EFSTs) received from the brigade commander. Brigades do a good job of planning and fighting the brigade's deep fight; however, *fires from the task force close fight is often inadequately planned or do not support the task force scheme of maneuver*.
2. Many task force fire support plans lack flexibility because the FSO has not planned in depth or developed a plan for use of all fire support assets (i.e., CAS or MLRS fires) just because brigade did not allocate any of those assets.

RESULT: Fires are not synchronized with the task force's scheme of maneuver and do not accomplish the EFST.

Techniques:

1. Current doctrine outlines a top-down fire planning process with bottom-up refinement.
   -If the brigade has done an adequate job of synchronizing fires with maneuver at the brigade level, then the only refinement that should be needed is target location based on SITEMP refinement at task force level and triggers based on the task force scheme of maneuver.
   - However, if the brigade has done an *inadequate* job or the scheme of fires does *not* support the task force scheme of maneuver, the FSO must plan fires to support his commander.
2. If any changes to the scheme are made:
   - They should be within the framework of the brigade EFSTs.
   - The task force FSO must give the brigade FSO and FSCOORD a heads-up that the task force commander will be seeking approval for his new plan from the brigade commander.
3. Brigades often experience spans of time when a particular fire support asset is not used (or in the case of CAS, diverted) due to deviation from the original plan. If the task force FSO has a plan for these assets that supports the task force scheme of maneuver, often the brigade will re-allocate assets to the task force.

(TA.2.3 Integrate Fire Support)

TREND 11: Task force management and refinement of fire support critical friendly zones (CFZs).

PROBLEM: Task forces are experiencing difficulty planning, refining, and activating CFZs.

Techniques:

1. During the wargame, the FSO must plan CFZs to cover movement, attack-by-fires, support by fires, breach sites, TAAs, battle positions, and hide positions through the depth of the zone or sector, then establish triggers for their activation.

2. During execution, the fires support sergeant or targeting officer must refine and activate the zones using reports from FISTs and company/teams via cross talk with the TOC battle captain to ensure zone coverage of where the force is actually located on the battlefield. EPLRs and APPLIQUE situational awareness can be utilized to complement the refinement and activation battle drill.

3. The number of zones allocated to a task force are limited. Therefore, it is essential that the task force commander state his force protection priorities for CFZs to ensure a critical unit or main effort, such as a breach force, is covered.

(TA.2.3 Integrate Fire Support)

TREND 12: Fire support integration into engagement area development.

PROBLEM: Task forces are experiencing difficulty in integrating fire support into engagement area (EA) development during defensive missions.

Techniques:

1. The task force fire support officer (FSO) should develop a scheme of fires to support the commander's decisive point. This includes:
   - Observer planning.
   - Target emplacement based on planned obstacles.
   - Target refinement based on the actual obstacle siting/emplacement.
   - Trigger emplacement - both tactical and execution (include limited visibility/thermal).
   - An EA mounted rehearsal.

2. Tasks should be prioritized with an established timeline and the status of preparation reported and tracked in the TOC. This must be a coordinated effort between the task force FSO/FSE and company/teams.

3. Execution can be centralized or decentralized. The task force fire support sergeant is the subject matter expert and should supervise and coordinate the overall effort.

4. Trigger kits should be standardized and resourced. Time distance factors are different for an enemy moving during day and night, and response and shift times for mortars and artillery are different.
   - Establish both tactical and execution triggers. Emphasis must be focused on emplacing tactical and execution triggers based on precision time distance factors IAW the moving target engagement procedures published in **FM 6-30**.
   - Primary and alternate observers should observe the marking of targets and the emplacement of triggers from their OPs to ensure they can see them, and they must record lased (AZ, VA, range) data to both.
   - FISTs conduct target area surveys and prepare terrain sketches and visibility diagrams.

(TA.2.3 Integrate Fire Support)

TREND 13: FA battalion radar zone management. Planning and executing radar zones (critical friendly zones (CFZs)) to facilitate the maneuver commander's force protection priorities is a problem area for the direct support (DS) field artillery (FA) battalion.

PROBLEMS:

1. The DS FA battalion seldom provides responsive counterfires that support the maneuver commander's priorities for force protection. Planning, rehearsing, and triggering the radar employment plan is rarely synchronized with the reinforcing artillery or DIVARTY assets available and the rest of the brigade's plan. The crucial missing piece is the linkage of the DS FA battalion TOC to the radar during the execution of the zone plan.

2. Synchronizing and coordinating with DIVARTY for redundant AN/TPQ-37 coverage and the deconfliction of zone coverage within the brigade's sector/zone is a problem area. This consistently leads to ineffective radar cueing and zone activation.

3. Digital transmission of radar zones and orientation data are seldom used. This greatly slows down the zone activation and creates unnecessary work.

Techniques: Properly planned, rehearsed, refined, verified, and digitally executed radar zones can initiate responsive, prioritized counterfire during key times or events in the battle.

1. Effective radar employment begins with the interpretation of the maneuver commander's planning guidance for his priorities for force protection.

2. Identify the probable locations of the events or units, obstacles, breach points, or routes critical to success. The brigade FSE/FSCOORD should do this during the brigade's wargame of the selected COA.

3. The integration of zone management for planning, allocation, approval, dissemination, and rehearsals into the overall FS planning cycle must be a FSCOORD/FSO's priority to ensure success. A top-down radar zone plan must be developed so bottom-up refinement can occur.

4. Counterfire priorities must be established and understood to ensure responsive fires to support the force protection priority reflected by the planned zone.

5. Once the zones are consolidated and approved at the brigade FSE, the plan must be incorporated into maneuver and Fire Support Execution Matrices (FSEMs) or any other locally used products, such as scheme of fires worksheet if used.

6. The DS FA battalion S2/S3 and FA targeting technician must use the higher headquarters order/matrices as the planning guidance required to perform the bottom-up refinement necessary to develop the radar deployment order (RDO), position areas, and cueing plan for the radar.

7. The DS battalion S3, S2, brigade FSE, TF FSEs, and the FA targeting technician must understand their roles in the triggering, refinement, and verification of the zones to match the scheme of maneuver. Verification of the unit or event location covered by the planned zone is critical to the success of the plan. Accordingly, the zones planned for maneuver elements must be planned, verified, and triggered by the supported FSEs. To ensure success, the zone, cueing, and radar movement plans must be integrated into the fire support rehearsal, FA technical rehearsal, FA rehearsal (rock drill), and CAR (See **CALL Newsletter 98-5, *Rehearsals***).

8. Once the radar acquisitions are received, the DS battalion TOC's counterfire battle drill must process, clear, and initiate responsive counterfires. There are many moving parts and

coordination requirements to make an effective counterfire plan work. Effective coordination with DIVARTY for zone deconfliction and radar orientation is curtailed to ensure the targeting system is not overloaded with acquisitions. FA battalions must develop a TTP that incorporates the digital link and works for your unit similar to the process described above. Once they develop a TTP, incorporate it into the local SOP.

(TA.2.3 Integrate Fire Support)

TREND 14: Artillery movement in support of maneuver forces. Most DS battalion staffs understand Paladin movement techniques; however, they do not maximize the employment techniques of the Paladin system in supporting the combined arms team.

PROBLEMS:

1. Artillery movement is rarely adequately planned for and, therefore, not synchronized with maneuver or based on execution of essential fire support tasks (EFSTs).
2. Clear movement triggers are not developed, most moves being on order.

Techniques:

1. The FA battalion must be able to provide the fire support maneuver forces require. This means the battalion's repositioning must be planned for. Coordination of real estate requirements with the supported maneuver unit is a continuous process.
2. Artillery movement must be planned for in detail as part of the brigade planning process so that it is synchronized with the brigade scheme of maneuver. The brigade rehearsal is a good place for final coordination to take place. As part of the FA battalion planning process, this movement plan is refined. Some of the factors that must be considered as part of this planning process are:
    a. How do we fit into the brigade scheme of maneuver?
    b. What are our range requirements?
    c. Do we have any ammunition limitations?
    d. What are the critical targets in the scheme of fires?
    e. What is the planned/acceptable out-of-action time understood by the brigade commander?
    f. What adjacent unit coordination is required?
    g. What is the trigger to execute?
        - Friendly events?
        - Enemy events?
        - Time related or accumulation of rounds fired?
    h. Who triggers the movement?
        - Brigade commander/S3?
        - FSCOORD?
        - FA battalion S3?
        - Battalion commander?
    i. Time/distance correlation?

3. Paladin battalions must know, understand, and use maneuver graphical control measures to plan and fight the battalion. Using operational terms and symbols that are common to maneuver units will aid in their understanding of how Paladin maneuvers.

4. The staff provides firing batteries with clear guidance and triggers to conduct survivability moves and tactical moves. Tactical moves should be established using clear, event triggers and Paladin axis (offensive operations) or zones (defensive operations) for the batteries to move into.

5. Paladin's ability to occupy places unsuitable for conventional artillery and no requirement for sole use of terrain simplifies the maneuver commander's land management problems. Terrain management and coordination will be simplified once maneuver commanders understand Paladin movement techniques.

(TA.2.3 Integrate Fire Support)

TREND 15: Critical friendly zone (CFZ) refinement and activation.

PROBLEM: The fire support element (FSE) does not fully develop an effective battle drill for planning, refining, and activating critical friendly zones (CFZs) during the campaign.

Techniques:

1. During the wargame, the fire support officer (FSO) should plan CFZs to cover movement, attack-by-fires, support-by-fires, breach sites, tactical assembly areas (TAAs), battle positions (BPs), and hide positions throughout the depth of the zone or sector, then establish triggers for their activation.

2. During execution, the fire support sergeant or targeting officer should refine and activate the zones to ensure zone coverage of where the force actually is on the battlefield. He should use reports from FISTs and company/teams via their cross-talk with the TOC battle captain.

3. Enhanced position location reporting system (EPLRS) situational awareness can be utilized to complement the refinement and activation battle drill.

(TA.2.3 Integrate Fire Support)

TREND 16: (LTP) Fire Support Integration in the Reconnaissance/Counter-reconnaissance operation.

PROBLEM: Units do not adequately plan for the use of indirect fires to support recon/counter-recon operations. Scouts are sent on missions without a fire plan, support fires, and engagement criteria. This affects the scouts' ability to protect/secure their movement forward or to disengage from enemy reconnaissance assets when they come under observation and/or direct fire.

Techniques:

1. Involve the brigade and task force fire support officers (FSOs) in planning the R&S effort. They should provide deployed reconnaissance and surveillance (R&S) assets a target list to support their mission, a list of frequencies for fires, and a copy of the brigade/task force scheme of fires.

2. The brigade must consider the positioning of fire support assets (FA or mortars) forward to provide responsive fires in support of the R&S plan.

3. To avoid fratricide and to facilitate clearance of fires, the FSOs must plan no fire areas (NFAs) around observation posts (OPs) and continually update the NFAs as R&S assets move forward.

(TA.2.3 Integrate Fire Support)

TREND 17: (LTP) Integration of CAS and artillery fires with the scheme of maneuver. Brigade's employment of CAS and artillery fires usually does not set the conditions for success on the objective during the attack.

PROBLEMS:

1. Units do not understand the volume of artillery required for mission accomplishment.
2. Units do not understand the importance of synchronizing these tasks to the scheme of maneuver.

RESULT: Artillery fires are lifted and shifted before the task is complete.

Techniques:

1. To reverse this trend, brigades must better integrate the use of CAS and artillery fires to set the conditions for success on maneuver objectives. This is accomplished with an effective observation plan and scheme of fires specifically *focused* on destroying the motorized rifle platoon (MRP) at the point of penetration.

2. Suppression and obscuration fires facilitate the positioning of the support-by-fire (SBF) force and fires to support the breach, followed by fires to support the assault of the objective. These fires must be event-driven versus time-driven (i.e., the support force commander lifts smoke/suppressive fires when he is ready to begin his mission in the support-by-fire position). Suppression and obscuration fires must be defined in terms of specific areas and duration.

3. CAS employment must be wargamed during the planning process to ensure proper focus. This must include use of ACAs and SEAD. ALOs must be included in this process.

(TA.2.3 Integrate Fire Support)

TREND 18: (LTP) Light task force fire support integration with scheme of maneuver.

PROBLEMS:

1. Light task force fire support plans often lack specificity to support the scheme of maneuver.
2. Plans and orders do not clearly designate when units have priority of fires.
3. Staffs do not effectively plan triggers to shift priority of fires.
4. During direct fire fights, task forces do not use fire support to assist them in setting the conditions to defeat the enemy. Specifically, smoke or suppressive fires are overlooked to assist maneuver.

Techniques:

1. Task force staffs must improve clarity and specificity for whom has priority of fires and triggers to shift priority of fires. This must be articulated in a clear, detailed concept of fires.

2. During COA development and wargaming, staffs must consider smoke and suppressive fires to help set favorable conditions in the close operation.

(TA.2.3 Integrate Fire Support)

AIR DEFENSE BOS

(Trends are numbered sequentially for cross-reference and are <u>not</u> in any priority order.)

<u>Needs Emphasis</u>

TREND 1: Directed early warnings during air defense operations.

PROBLEM: Directed early warnings are not rebroadcast in a timely manner to soldier/crew levels.

a. Breakdowns begin at task force (TF) level because there is no ADA representative in the task force TOC during the battle (the ADO fights from his BSFV).

b. Breakdowns continue when company commanders do not explain their active or passive air defense measures during rehearsals.

c. The breakdown is complete when the soldiers do not hear or understand the directed early warning.

RESULT: Inadequate rebroadcast of directed early warning reduces the unit's ability to take active or passive measures, resulting in unnecessary attrition to enemy CAS or Hinds.

Techniques:

1. Early warning continues to be the pivotal factor during air defense operations.

a. Directed early warning is designed to alert a particular unit, units, or area of the battlefield of an immediate or possible threat. It is passed over unit command nets designated by the unit as flash precedent traffic.

b. Directed early warning defines the local air defense warning (LADW), gives aircraft status (friendly, hostile, or unknown), and identifies the approaching cardinal direction.

2. Commanders must ensure that directed early warnings are rebroadcast immediately down to soldier/crew levels.

3. Commanders must ensure that soldiers understand and act on directed early warnings.

a. Air defense operations should be addressed in the unit TACSOP.

b. Cover, concealment, and dispersion are key to successful passive air defense measures.

c. Any successful air defense plan must include the consideration of Combined Arms for Air Defense (CAFADS).

4. Company-level actions to defeat the air threat include a CAFADS plan, the use of air guards, and engagement techniques to achieve the following:

a. Destroy the threat.

b. Force the threat away from friendly positions.

c. Force the threat to fly higher.

d. Spoil the hostile pilot's aim.

5. References: **FM 44-43, *BSFV Platoon and Squad Operations*; FM 44-64, *FAAD Battalion and Battery Operations***.

(TA.3.1.1 Select Air Targets to Attack)

TREND 2: Bradley Stinger Fighting Vehicle (BSFV) platoon reaction to early warning.

PROBLEMS:

1. BSFV platoons do not adequately develop or execute a communications plan to disseminate early warning to company/teams, and do not react to early warning.
2. Squads are not monitoring the proper early warning NET.
3. When platoons *do* develop a plan, they do not factor adjustments to their plan based on combat attrition.

RESULTS:

1. Company/teams do not react to air attacks with CAFADS or passive measures.
2. BSFV crews do not react to RED TIGHT DYNAMITE and do not dismount STINGER in a timely manner to defeat the air threat.

Procedure: BSFV platoons should follow the communication procedures outlined in **FM 44-43**.

Techniques:

1. Platoon leaders should develop SOPs regarding adjustments to their commo plan once crews are attrited. The SOP should assign at least one BSFV per section to broadcast early warning to the supported company/team. This will ensure that early warning is passed down to company/team level.
2. The platoon leader should prioritize NETs so crews will know what is most essential to the mission.

(TA.3.1.1 Select Air Targets to Attack)

TREND 3: Establishing air defense artillery (ADA) priorities.

PROBLEM: Units are not establishing air defense priorities during NTC rotations.

RESULT: STINGERs are usually allocated piecemeal instead of being positioned to provide mass at critical points and times on the battlefield.

Techniques:

1. Defining ADA priorities of protection and integrating that information with the air IPB will facilitate the allocation and positioning of ADA assets.
   a. The air defense officer (ADO) develops and recommends air defense priorities to the supported commander in concert with the IPB and the supported commander's intent.
   b. The commander approves or refocuses those priorities.
2. The ADO must have considered *criticality, vulnerability, recuperability, and threat* (CVRT) as defined below:

a. *Criticality*: The degree to which an asset or force is essential to mission accomplishment.

b. *Vulnerability*: The degree to which an asset or force is susceptible to surveillance and attack or to damage if attacked.

c. *Recuperability*: The degree to which an asset or force can recover from inflicted damage to continue its mission.

d. *Threat*: The probability an asset or force will be targeted by enemy air.

3. Often BSFV are positioned with company/teams with little consideration of CVRT. When using these factors, the ADO must determine what is most important to the commander and weight that factor. *Priorities should be made specific to an area or unit*.

EXAMPLE: Prioritizing maneuver is too general and would not provide the needed focus. Using CVRT, the ADO can assist the commander in allocating ADA assets to the force. The commander should determine which factor is most important for the operation and apply weights to the factors of CVRT and integrate them into the unit TACSOP.

4. Incorporate air defense doctrine, tactics, techniques, and procedures (TTPs), ADA principles, and ADA employment guidelines in **Home Station** training.

5. References: **FM 44-100*, Air Defense Operations***.

(TA.3.3 Integrate Air Defense Fires)

TREND 4: Establishment of air defense control measures for a deliberate attack.

PROBLEMS:

1. Bradley Stinger Fighting Vehicle (BSFV) platoon leaders seldom establish adequate control measures or air defense guidelines and principles to be achieved at the decisive point on the battlefield.

2. They seldom incorporate the use of preplanned positions to develop an adequate air defense coverage plan.

RESULT: The lack of control measures hinders the platoon's ability to adjust coverage as the battle develops.

Techniques:

1. BSFV platoon leaders should conduct detailed map reconnaissance to identify preplanned positions for every support-by-fire position, phase line, TAA, and assault position.

2. Once the decisive point has been identified, the platoon leader should develop his coverage plan by specifying a specific air defense guideline and principle to be established at all critical points on the battlefield. Example: If the breach is identified as the decisive point for the task force, the ADA concept should have preplanned overwatch positions and the platoon leader should state his task and purpose as massing STINGER coverage in order to achieve balanced fires or early engagement.

3. The platoon leader then adjusts coverage with attrition using the established control measures.

(TA.3.3 Integrate Air Defense Fires)

MOBILITY/SURVIVABILITY BOS & NUCLEAR/BIOLOGICAL/CHEMICAL (NBC)

(Trends are numbered sequentially for cross-reference and are not in any priority order.)

Needs Emphasis

TREND 1: Development of situational obstacle plans.

PROBLEM: Brigade planning staffs often focus their planning only on where they most likely expect to make direct fire contact with the enemy. Most assistant battalion engineers (ABEs) develop their situational obstacle plan addressing the same narrow band within the brigade's battle space in which it expects to make contact.

RESULT: The brigade and ABE are caught without a plan if the enemy exposes a weakness elsewhere, is moving slowly and does not enter the band, or the brigade makes contact with the enemy before the brigade arrives at the band.

Technique: ABEs should consider the following three areas when developing their situational obstacle plans for the BCT scheme of maneuver:

- Shaping the battle space to the brigade's front in order for the BCT to gain the advantage through the depth and width of the brigade zone.
- Protecting the brigade's flanks through the depth and width of the zone.
- Initial plans for follow-on hasty defense prior to resumption of offensive operations.

(TA.6.2.1 Secure/Select Location of Obstacles)

TREND 2: Design and integration of obstacles.

PROBLEMS:

1. Obstacle groups typically lack density and integration with direct and indirect fires.
2. During the defense, many assistant task force engineers (A/TFE) do not develop a complete Engineer Battlefield Assessment (EBA). The EBA usually focuses on friendly engineer capabilities, often omitting the impact of terrain or the enemy breaching capability.
3. While the task force commander's intent is understood, the A/TFE does not develop an obstacle group design based on the resource planning factors and the width of the avenue of approach (AA).
4. Obstacles are not designed to defeat enemy breaching assets. Designs do not use combinations of "more-visible" and "unseen" obstacles in each group to manipulate the enemy's maneuver in the desired direction.
5. The A/TFE's countermobility timeline does not consider emplacing obstacles during the day versus night based on enemy recon in sector.
6. Many task forces do not array obstacles with sufficient depth.

7. The company/team fire plans do not effectively integrate direct and indirect fires to support the obstacle group design.

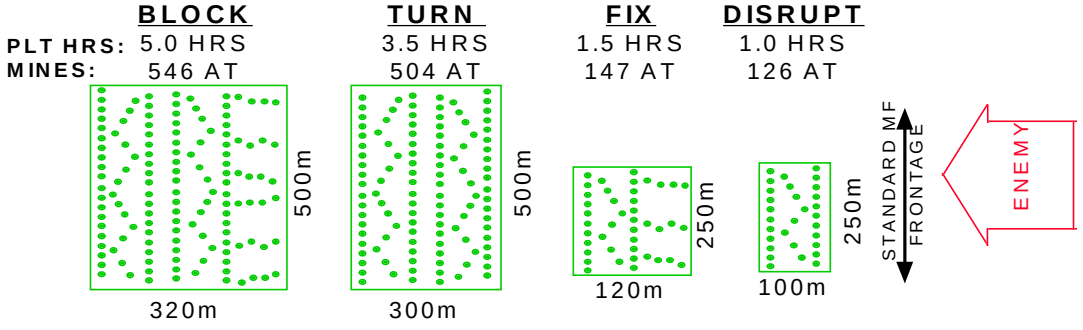
RESULTS:

1. Obstacles are rapidly bypassed or reduced by enemy engineers.
2. The task force does not achieve the intended obstacle effect of DISRUPT, FIX, TURN, or BLOCK on the enemy formation.

Techniques:

1. Tactical obstacle design should be based on the formation of the attacking enemy and intended obstacle effect.
2. Initial design and array of each obstacle group should incorporate the commander's intent, the resource planning factor (RF), and the total width of the AA.
3. Determine the total quantity of standard minefields required to achieve the intended effect using the obstacle group design calculation shown below. Other anti-vehicular obstacles such as AT ditch or 11-row concertina roadblock can substitute for up to 20% of the standard minefields in a group. Situational obstacles such as VOLCANO, MOPMS, or ADAMS-RAAMS can be planned as part of the groups or used to reinforce an AA based on a new threat. By understanding the task and purpose of fires for each obstacle group design, all units can achieve the intended obstacle effect of DISRUPT, TURN, FIX, or BLOCK on the enemy's formation.

STANDARD MINEFIELDS: A KEY COMPONENT OF OBSTACLE GROUP DESIGN



OBSTACLE GROUP DESIGN CALCULATION:

$$\text{\# STANDARD MINEFIELDS} = \frac{\text{(TTL WIDTH OF AA) X (RESOURCE FACTOR)}}{\text{(STANDARD MINEFIELD FRONTAGE)}}$$

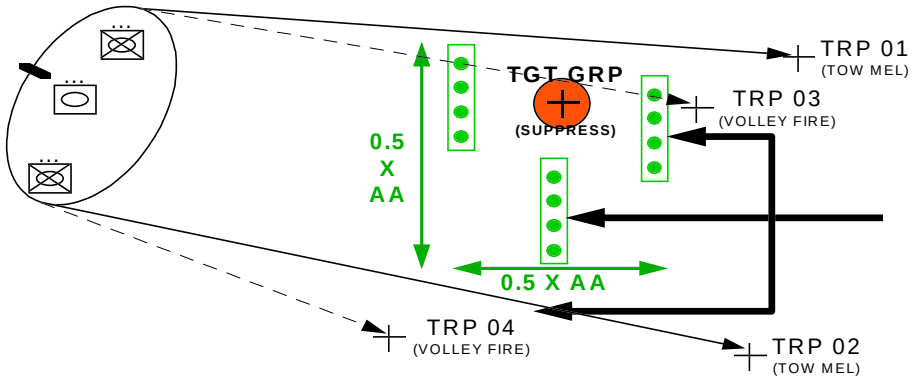
OBSTACLE EFFECT	RESOURCE FACTOR	STANDARD MF FRONTAGE
DISRUPT	0.5	250m
FIX	1.0	250m
TURN	1.2	500m
BLOCK	2.4	500m

INTEGRATION OF FIRES AND OBSTACLE EFFECT

DISRUPT GROUP

RF = .5
SF = 250m

- BREAKS UP ENEMY FORMATION AND TEMPO.
- FORCES ENEMY TO DEPLOY AND BREACH EARLY.
- SLOWS PART OF ENEMY FORMATION AND FRAGMENTS C3.
- ALLOWS PART OF ENEMY TO BYPASS PIECEMEAL INTO MAIN ENGAGEMENT AREA.
- SHALLOW OBSTACLES NOT VISIBLE AT LONG RANGE BUT SHOULD BE EASILY BYPASSED AS ENEMY NEARS.



(TA.6.2.2 Emplace Obstacles)

TREND 3: CSS unit protection.

PROBLEMS:

1. Task force CSS elements, particularly the CTCP, UMCP, and medical platoon, often do not take measures to protect themselves from enemy ground, artillery, air, or chemical attacks.
2. CSS assets very rarely have effective security or defense plans with sectors of fire, rehearsed or understood save plans, or adequate coordination with adjacent units for security.
3. Often CSS soldiers do not have ammunition for their personal weapons.

RESULTS:

1. CSS units are highly vulnerable and an easy target for enemy attacks.
2. CSS assets are unprepared for enemy contact, resulting in disrupted support and unnecessary casualties.

Techniques:

1. CSS elements should address security plans in their SOPs.
2. They should conduct troop-leading procedures (TLPs) just as they would for any other unit.
3. Units should plan for and rehearse actions under each of the seven forms of contact.

Train the battle drills in **FM 7-8, FM 17-15, or FM 7-7J** to provide the basis for this reaction.

4. CSS elements should stress terrain selection for trains locations.
5. Give additional attention to basic soldier skills and NCO supervision of security efforts.

(TA.6.3.1.1 Protect Individuals and Systems)

TREND 4: Engineer battalion HHC defense of the brigade support area (BSA).

PROBLEM: The engineer battalion headquarters and headquarters companies (HHCs) are not trained to standard on defending their portion of the BSA perimeter against Levels 1 and 2 threats.

Techniques:

1. There are three key factors to successful defense of the BSA:

a. The company commander clearly establishes the priorities of work with standards and a not later than (NLT) completion time in his company OPORD.

b. The unit leadership tracks and inspects the priorities of work and adjusts timelines IAW METT-T.

c. Subordinate leaders are:

- Trained on the various essential tasks (i.e., construction of fighting positions and reaction to contact drills).
- Given time to train their soldiers on individual and collective tasks.
- Held accountable for the execution of the priorities of work IAW the commander's OPORD.

2. HHCs should develop SOPs for company defense operations.
3. HHCs should use "sergeant's time" to train basic skills such as construction of fighting positions with range cards and rehearsing reaction to contact drills.
4. HHCs should execute a Home Station FTX to train the collective tasks such as displacing to a new BSA site and executing the priorities of work.

(TA.6.3.1.1 Protect Individuals and Systems)

COMBAT SERVICE SUPPORT BOS

(Trends are numbered sequentially for cross-reference and are not in any priority order.)

Needs Emphasis

TREND 1: DA Form 2404/5988E tracking from the company/team to the UMCP.

PROBLEM: CSS units consistently experience serious problems with their maintenance information flow. A breakdown in the maintenance system is often caused by inadequate flow of DA Form 2404/5988E from the company/teams to the UMCP:

- No daily tracking system by the ULLS clerks.
- No leadership emphasis at the company/team level.
- No verification of deficiencies by company/team level maintenance mechanics.
- Inaccurate reports provided to the task force commander.

Techniques:

1. Develop a daily tracking system for the ULLS clerks.
2. Promote leadership emphasis at the company/team level.
3. Make sure the mechanics verify all deficiencies at the company/team level.
4. The team chief must ensure that *all* parts on the DA Form 2404/5988E are looked up prior to turning the paperwork into the ULLS clerk.
5. Refer to the article "Redesigning PMCS to Build Combat Power," page 28 of CALL Pub No. 97-18, ***CTC Quarterly Bulletin***, 4th Qtr FY 97.

(TA.7.3.2 Fix/Maintain Equipment)

TREND 2: Engineer unit preventive maintenance checks and services (PMCS). A *majority* of engineer units deploy to NTC with non-mission capable (NMC) VOLCANO and MICLIC systems.

PROBLEMS:

1. Units too often arrive at NTC with the wrong PMCS -10 manual and no change updates, and then claim they are unable to get the manual or did not know there was a change published.
2. Units do not know what seemingly minor mechanical faults will deadline their key weapons systems.
3. Most leaders do not take the time to understand the specific mechanical requirements of the VOLCANO and MICLIC warfighting systems, and the proper conduct of –10 PMCS is not enforced to standard during their Home Station training.

RESULT: When units show up to the NTC thinking their systems are fully mission capable (FMC), they are surprised to have their system deadlined due to improper conduct of –10 PMCS.

Techniques:

1. The majority of these problems would be solved if leaders would enforce the standard of "by the book" PMCS for their weapons systems.

2. Most units know 6 to 12 months out they will be coming to the NTC. They should establish maintenance "hot pits" that focus on the proper analysis of the -10 for the VOLCANO system, to include the prime mover (HEMTT/M548) and the MICLIC system. Ensure the operator conducts the proper PMCS and then verify it through company/battalion hot pit programs.

3. The battalion must have an aggressive publications program that keeps up with the latest publications and their changes. The establishment of a GTA card that focuses on specific VOLCANO/MICLIC maintenance checks may be one approach or revitalizing the technical manuals with all the latest changes may be the other solution.

(TA.7.3.2.1 Perform Preventive Maintenance)

TREND 3: Casualty reporting and tracking within the combat engineer battalion Administrative and Logistics Command Post (ALOC).

PROBLEMS:

1. Recently, engineer battalion Administrative and Logistics Command Posts (ALOCs) have not used tracking methods that maintain detailed and accurate accountability of casualties on the battlefield.

2. Units have relied solely on FM casualty reports that lack the detail necessary for PAC personnel to generate required feeder reports and awards. Reports usually include little more than battle roster numbers.

3. Engineer units, which usually rely on supported unit assets to evacuate casualties, often send formal feeder reports only through those supported unit channels, bypassing engineer channels altogether.

Techniques:

1. Units should accurately track casualties by event and type as well as by individual.

2. Units must receive formal Casualty Feeder Reports/Witness Reports *as well as* the initial FM report. Initial reports need to include the details necessary to allow ALOC personnel to track casualty by type (i.e., return to duty, litter, or killed) and by incident. Brief, but detailed information in initial casualty reports provides a tool by which ALOC personnel can better track losses, generate reports and awards in a timely manner, and provide immediate analysis and feedback to the commander. A suggested method is shown below.

a. Subunits should send an initial report via FM with the necessary data for ALOC personnel to anticipate the movement of casualties on the battlefield and to begin planning for replacement operations. This information allows the ALOC to assess combat losses, not only in terms of individual personnel, but also in terms of personnel as they relate to combat systems. The information also allows the ALOC to identify early on those soldiers which will be pushed back through the replacement system. At a minimum, the initial report should include:

- Battle roster number.
- Type of casualty (RTD, WIA, KIA, non-battle).

- Location.
- Date-time.
- A quick event description so that personnel losses are tied to specific actions or equipment losses on the battlefield.

b. Following the initial reports, formal Casualty Feeder Reports/Witness Reports, action summaries, and personnel status reports should be sent through battalion FM channels or through the LOGPAC. These follow-up reports provide verification of initial reports and the information necessary to generate awards, letters, and action summary reports as necessary.

(TA.7.4.4.2 Evacuate Casualties)

TREND 4: Tracking task force supply status at the CTCP/FTCP. Units have difficulty tracking task force key classes of supply within the CTCP or FTCP.

PROBLEMS:

1. Units do not know how much fuel and ammunition are in the field trains, combat trains, or in the company/teams.
2. Daily LOGSTAT reports are bypassing key nodes in the task force CSS team. Either they go straight to the field trains without the S4 knowing what is on them, or they go to the CTCP and then either late to the field trains or not at all.
3. Company/teams report what they want, not what they have on-hand.

RESULTS:

1. Supply crises arise without warning and require immediate resolution by the unit S4.
2. Supplies can not be forecast, which forces the S4 to make decisions regarding the allocation, forecasting, and cross-leveling of scarce supplies without accurate information on which to base this decision.

Techniques: A good track of the supply status allows good decisions and enables the resupply effort to be more responsive and timely for the unit's needs.

1. Develop a system of charts that easily and accurately displays the logistics status of the unit.
2. Ensure that the LOGSTAT report includes a column for on-hand as well as requested quantities of supplies.
3. Determine standard times or events that cause the CTCP and FTCP to share logistics information.
4. Ensure that unit LOGSTAT reports go to the CTCP as well as the FTCP. (Method: Turn in two copies at LOGPAC pickup. The S4 or his representative makes notes on and approves the requests, then *a copy goes with him to the CTCP, and the support platoon leader or some other field trains person takes a copy to the FTCP*.)

(TA.7.5.2 Supply the Force)

TREND 5: Development of field artillery Unit Basic Loads (UBLs). Too often, units are deploying with no developed or published UBLs.

PROBLEMS:

1. The battalion is not aware of what they need and have not divided the required classes of supply into battery amounts.
2. The requirements are not part of the battalion SOP so batteries cannot properly develop their load plans.
3. Distribution plans are not developed so units have not identified what host nation support they may need.

Procedures: Refer to **FM 101-10-1/2**, historical data, supply usage requirements, operations logistics planner software, FORSCOM Reg 700-3, **FM 8-10-5**, and SB 8-75 for guidance on UBLs.

Techniques:

1. Units need to have a clear understanding of all classes of supply, and pertinent information should be included in the unit TACSOP.
2. Appoint an OIC/NCOIC for each class of supply.
3. Deploy a robust advance party that can open all accounts and begin drawing.

(TA.7.5.2 Supply the Force)

TREND 6: Field artillery battalion Rearm, Refuel, Resupply, and Survey Point (R3SP) operations.

PROBLEMS:

1. Field artillery battalion staffs usually identify R3SP requirements but often do not integrate or synchronize the operation with the tactical plan.
2. The S3s give poor or untimely ammunition guidance.
3. There is often no effective timeline and/or trigger.
4. The required equipment and assets, although available, are not postured forward to execute an R3SP.
5. A typical R3SP location is along the brigade MSR in an open field with no concealment and poor dispersion.
6. There is poor coordination between unit advance parties and the R3SP site OIC.

RESULTS:

1. The lack of discussion of R3SPs during the planning process causes poor site selection and unsynchronized execution within the battalion movement plan and logistics plan.
2. Poor guidance from the S3 impedes the S4's effort to consolidate the necessary R3SP assets (CL III [B], V, survey, and LOGPAC if available) at the correct time and location.
3. Often an R3SP turns into a refuel operation or unit distribution effort because of inadequate triggers.
4. Poor coordination between advance parties and the R3SP site OIC causes delays and confusion during the operation.

Techniques:

1. The R3SP's principle mission is to rearm and refuel the battalion with secondary missions of providing survey update for the M109A6 and linking up LOGPAC vehicles (if possible) or required unit supplies. The R3SP is not the only resupply technique. It is, however, the most efficient method to rearm, refuel, and resupply a battalion conducting a deliberate movement. A properly planned, prepared, and executed R3SP is the combat multiplier necessary to allow the battalion to continue the fight uninterrupted.

2. The S4 integrates and synchronizes the execution of the R3SP with the battalion's tactical plan.

3. The S4 should position the R3SP site central to the Paladin position areas to facilitate rapid execution. It must be tactically positioned with good concealment, as survivability is a primary consideration for site selection. Maximize terrain for cover and concealment and ensure good dispersion of assets.

4. The S3 provides guidance (ammunition types and powders) to the S4 with sufficient time for the battalion logisticians to execute the plan.

5. The S4, considering battery ammunition statuses, remaining mission requirements (estimate), and the battalion's on-hand ammunition, gives guidance to the Battalion Ammunition Officer (BAO) who, in-turn, begins configuring ammunition.

   a. The BAO should focus on configuring pure PLS loads of killer ammunition with the correct powders.

   b. Special munitions (i.e., FASCAM or smoke) can be linked up with the appropriate unit at the R3SP or in the unit location.

   c. The BAO notifies the S3 and units what is available at the R3SP to include ammunition types.

6. The ammunition PSG configures the R3SP in the field trains and possibly stages it in a forward location.

7. Combat trains assets are for emergency resupply during the battle and should not be used; if they are used, they must be resupplied, reconfigured, or replaced immediately.

8. Ensure all assets are assembled early enough to conduct a rehearsal.

9. The R3SP site layout should facilitate rapid execution.

   a. Establish an entry point, track plan, multiple ammunition upload lanes, by-pass lanes for vehicles not requiring ammunition, refuel points with survey control points, and a LOGPAC/supply linkup point at the exit.

   b. Each element within the R3SP should maintain tactical dispersion.

   c. The R3SP site should be set up to maximize the use of the multiple assets and be able to conduct multiple operations simultaneously.

10. The S4, CAT CDR, or BAO should be the R3SP site OIC and be responsible for site reconnaissance, conduct communications checks, and establish the R3SP prior to units arriving.

   a. The R3SP OIC ensures the site layout facilitates rapid execution of R3SP.

   b. Batteries should upload howitzers from battery ammunition vehicles prior to arrival, thus minimizing vehicles that rearm at the R3SP.

   c. Batteries should transload ammunition from battery ammunition resupply vehicles (PLS) to section FAASVs, again minimizing R3SP execution time.

   d. This also will reduce the ammunition burden on the R3SP assets.

11. The R3SP site OIC positions the refuel point after the rearm point allowing simultaneous operations, e.g., refueling howitzers while rearming ammunition vehicles.

12. The recon survey officer establishes the survey control points at the refuel sites to facilitate simultaneous operations.

13. The S4 should position LOGPAC vehicles (if available) near the R3SP exit to link up with their unit as they depart the R3SP site.

14. Inclusion of the R3SP in the battalion TACSOP is the key to success. The TACSOP must establish responsibilities, time lines, a pre-R3SP advance party link up checklist, security responsibilities, and a site layout diagram.

(TA.7.5.2 Supply the Force)

COMMAND AND CONTROL BOS

(Trends are numbered sequentially for cross-reference and are not in any priority order.)

Positive Performance

TREND 1: Tactical communications installation. Task forces at the National Training Center consistently and adequately install tactical communications in the frequency hopping and single channel modes.

(TA.4.1.2 Manage Means of Communicating Information)

TREND 2: Retransmission operations. The retrans teams are usually technically and tactically proficient at VHF-FM communications.

(TA.4.1.2 Manage Means of Communicating Information)

TREND 3: Task force identification of Essential Fire Support Tasks (EFTs). Units adequately identify Essential Fire Support Tasks (EFSTs). Task force commanders and their Fire Support Officers (FSOs) understand the need for EFST, and task force commanders continue to improve on issuing their guidance for fires in terms of the specific task and purpose (i.e., EFST).

Technique: The NTC and the field artillery/fire support school have written TTPs that are a good reference for units to use in **Home Station** to help understand the specifics of EFST development. This document (White Paper: "Fire Support Planning For The Brigade And Below," Draft #3, 17 Dec 97) is available from the Fire Support And Combined Arms Operations Department, United States Army Field Artillery School, Fort Sill, OK.

(TA.4.4.1.1 Develop and Complete Plans or Orders)

Needs Emphasis

TREND 1: Reporting requirements and procedures. Reporting within the units too often does not facilitate the commander's situational awareness and enhance battle command.

PROBLEMS:

1. SPOT Reports, Contact Reports, Commander's Sit Reps, FARP Sit Reps, and BDA lack format, contain vague information, and are not submitted in a timely fashion.
2. Unit C2 reporting architectures cause confusion with the company commanders. Typically, company commanders do not know if they are to report to the battalion commander (in an AH-64) or the S-3.

Technique: The commander should identify reporting requirements and include these requirements in the unit SOP. Considerations for report requirements should include:

a. Change in combat power.

b. Crossing phase lines.
c. Occupation of holding areas and FARPs.
d. SP/RP of air routes.
e. Set in attack-by-fire (ABF) (cold and hot).
f. Remaining (50% expenditure) and winchester calls.
g. FARM reports.
h. Battle damage assessments (BDAs) for tanks, ADA, artillery, personnel carriers, personnel, C2 (TAAPP-C).
i. Commander's SITREP (enemy situation, units situation-combat power/fuel/ammo/current position, ability to accomplish assigned mission, and recommendations).

(TA.4.1.1.4 Receive and Transmit Friendly Troop Information)

TREND 2: Fire support team (FIST) reporting standards.

PROBLEM: Fire support teams (FISTs) frequently do not report information in accordance with doctrinal report formats.

Procedures:

1. FISTs should report information and call for fire IAW the formats in **FM 6-20-20** and **FM 6-30**.
2. The FIST forward observer's primary mission is to call for fires for their maneuver element. But when fires are unavailable, their next responsibility is to *report*. The task force needs to enforce reporting standards (i.e., call for fire, SALUTE reports, and SALT reports).
   a. It is imperative that forward observers (FOs) report exactly what they see, without bias or subjectivity.
   b. FOs must be precise, objective, and not attempt to analyze what they are seeing. Let the FSO, S2, and FSE conduct the analysis.

(TA.4.1.1.4 Receive and Transmit Friendly Troop Information)

TREND 3: Armor and cavalry signal officer (SIGO) employment of FM retrans systems. Armor and cavalry SIGOs lack the ability to effectively employ FM retrans systems in support of the commander's scheme of maneuver.

PROBLEM: Trends show that signal officers are inadequately trained in basic tactics. Throughout mission analysis and wargaming, SIGOs are too often unable to identify critical implied tasks that are crucial for successful communications and survivability on the NTC battlefield.

Techniques:

1. SIGOs can be successful if they apply some of the following rules:
   - Brigade signal officer (BSO) understands maneuver and can deduce implied tasks: DATK/HATK, MTC, DIS, POL, R&S and screen/guard.
   - Develops a flexible retrans plan:
     -- Considers various schemes of maneuver

-- Supports various COAs
-- Pre-plans retrans repositioning
-- Deploys back-up retrans
-- Conducts thorough PCC/PCI
-- Battle tracks retrans system
-- Conducts troop-leading procedures

- Integrated with the planning process:
-- Backward planning
-- Establish triggers for hot time and LD time
-- Mission brief
-- WARNO/FRAGO
-- Conduct rehearsals

2. **FM 11-43*, The Signal Leader's Guide*** is an excellent guide for the SIGO.

(TA.4.1.2 Manage Means of Communicating Information)

TREND 4: Battalion/brigade signal officer (BSO/SIGO) role.

PROBLEM: Battalion/brigade signal officers (BSO/SIGOs) are often improperly utilized to only place retransmission nodes.

Techniques: A good BSO/SIGO plans communications for the unit's success.

1. The BSO/SIGO should be assigned to plan and synchronize an approved command and control system. The BSO/SIGO operates in the unit to ensure the commander has command, control, communications, computers, and intelligence (C4I) for his warriors.

2. This BSO/SIGO plans and synchronizes the communication nodes with the flow of the battle and recommends places for the TOC, J-TOC, combat trains command post (CTCP), and MSE assets.

(TA.4.1.2 Manage Means of Communicating Information)

TREND 5: Engineer battalion communication planning.

PROBLEM: Poor communications continue to impact engineer combat operations. Often the decision to settle for various forms of relay, no redundancy in systems/procedures, and unclear or unenforced frequency management plans results in poor communication architectures.

Techniques:

1. Communication planning requires the focused attention of the battalion's senior leadership. It is a top-down responsibility and requires proactive staff supervision.

2. The battalion signal NCO should develop mission-specific communications plans that support maneuver plans. To do this requires detailed knowledge of terrain (use available terrain visualization products) and the scheme of maneuver.

3. Use Terrabase (or equivalent) line-of-sight (LOS) shots to support triggers for repositioning the retrans.

4. Include a clear, enforced communications annex in each OPORD.

(TA.4.1.2 Manage Means of Communicating Information)

TREND 6: Task force TOC battle tracking and information management.

PROBLEM: Task force TOCs too often do not have established procedures for information display, message handling, and battle tracking.

- There is a lack of training on information management.
- Most units do not know what information to track. They often track information that is *not* critical, are unable to identify information that *is* critical, or attempt to track an overabundance of information that makes it unmanageable.

Techniques:

1. Decide what standard information the TOC expects from subordinate units.
2. Ensure subordinates understand what information is expected and when it should be provided. Units must ensure that a satisfactory number of individuals other than and including the battle captain understand the system for information management. Information is lost when only a few individuals understand the system.
3. When a task force commander decides additional tracking information is required for a specific mission, these new requirements must be disseminated to subordinate units.
4. The task force XO must monitor his staff sections to ensure that the information management system is to standard.
5. The task force commander and staff should be able to quickly visualize the accurate status of the task force from one source in the TOC.

(TA.4.1.3 Maintain Information and Force Status)

TREND 7: Engineer battalion battle tracking.

PROBLEM: The engineer battalion tactical operations center (TOC) staff has difficulty with clearly and accurately tracking mobility, countermobility, and survivability data.

Techniques:

1. A clear, visible tracking system that combines map and wing board data is the most effective. If you do not use it, you do not need it (See **CALL Newsletter 95-07, *Tactical Operations Center***).
2. Information must be accurate, and organized so it is easy to read. Key graphics and charts required in the engineer battalion TOC to sustain combat operations are:
   a. Modified Combined Obstacle Overlay (MCOO).
   b. Situation Template (SITEMP).
   c. Priority intelligence requirements (PIR).
   d. Maneuver graphics.
   e. Execution matrix.
   f. Situational obstacle matrix.
   g. Obstacle overlay.

h. Fire support plan.
i. Combat power status.
j. CSS graphics.
k. Subordinate unit locations, tracked two levels down.

(TA.4.1.3 Maintain Information and Force Status)

TREND 8: (LTP) Light infantry task force situational awareness.

PROBLEM: Light infantry task force staffs do not have good situational awareness from mission analysis to execution.

- Tactical operations centers (TOCs) do not have or are not updating the adjacent task force's mission, disposition, and task and purpose.
- Task forces plan their operation in a vacuum, not considering the impact of the heavy task force operations on their actions.

Technique: Position a disciplined liaison officer at the brigade main.

(TA.4.1.3 Maintain Information and Force Status)

TREND 9: Casualty Feeder Reports (DA1156).

PROBLEM: A Casualty Feeder Report (DA Form 1156) is not being filled out and collected for each and every casualty assessed on the simulated battlefield. Common reasons are:

- Units use non-doctrinal methods of collection, usually at the Battalion Aid Station, instead of using the chain of command.
- Soldiers and leaders do not know what the DA Form 1156 is for, what it does, or how to properly fill the form out.
- Responsibility is not clearly assigned to someone to ensure that 100% of DA Forms 1156 are collected, or the person with the responsibility is not in a position to accurately or effectively execute that responsibility.
- Soldiers do not have the form available to fill out.

RESULT: Improper completion, verification, or submission of DA Form 1156 results in:

- Soldiers and their families not taken care of.
- Next of kin not notified.
- SGLI not distributed.
- Purple Hearts not awarded.
- Letters of sympathy/condolence not written.

Techniques:

1. Use the chain of command to fill out, collect, verify, and pass on the DA Form 1156. This starts from the team leader/tank commander level.
2. Assign somebody in the company with the primary responsibility (i.e., 1SG, XO, or commander) to ensure that 100% accountability is achieved and that the form is completed accurately.

3. Conduct training in the use of the DA Form 1156 at NCODP/SGT's time, and execute the use of the form whenever conducting force-on-force field operations.

4. Ensure that an adequate supply of forms is available and that each soldier carries *one pre-filled out* with his information *plus two blanks to use for other casualties*.

(TA.4.1.3.1 Store Information)

TREND 10: Engineer battalion risk management. Engineer battalions are typically conducting a form of risk management on a mission-by-mission basis, generally following the Force XXI model.

PROBLEMS:

1. The process is not organic to the Military Decision-Making Process (MDMP) but often an afterthought.
2. Critical operational risks like conducting night tactical road marches and mitigating controls are not identified.
3. Subunits are not forced to continue the process at their level.

Techniques:

1. Risk management is applicable to *everything* an organization does. All units should conduct a Force XXI-type risk management process for every mission.
   a. Conduct risk management at all levels, from battalion to squad.
   b. Each echelon refines the analysis for what they will execute at their level.
2. Make the risk management process organic to the MDMP, with the risk management product issued not later than the higher echelon's OPORD.
3. Higher echelon commanders should add risk management to their pre-combat check/pre-combat inspection (PCC/PCI) checklist and *actually check it*.

(TA.4.2 Assess Situation)

TREND 11: Brigade engineer force task organization, command and control.

PROBLEMS:

1. Brigade engineers routinely allow habitual associations, not the engineer battlefield analysis (EBA) and mission analysis, to drive task organization.
2. Brigade engineers do not perform a detailed analysis of engineer actions throughout the depth of the brigade's battle space using any type of standard methodology. Reverse breach planning for offensive operations is an example of the missing methodology.
3. Engineer battalions do not fully analyze the "why" when deciding upon the command/ support relationship, nor do they clearly specify this relationship in orders once decided upon (attached, OPCN DS, etc).
4. In many cases, units significantly deviate from doctrinal command/support relationships by performing nonstandard CSS roles during execution. Engineer battalions routinely "attach" SAPPER companies to habitually associated TFs without regard to mission analysis. This appears to provide the "easy" answer by shifting command and control and CSS responsibility to the supported TF.

RESULTS:

1. Engineers do not identify all engineer tasks required to accomplish the mission and are unable to adequately allocate forces, establish effective command/support relationships, weight the main effort, or maximize the impact of the engineer force at the decisive point on the battlefield.

2. Engineer battalions typically assume a very detached relationship with task-organized SAPPER companies for planning and support requirements, displaying a distinct lack of ownership.

3. Engineer battalion commanders direct the shifting of engineer assets not under their control, without regard for the published command/support relationship.

4. Task forces, engineer battalions, and SAPPER companies are confused with the nonstandard CSS requirements, degrading CSS responsiveness, logistics reporting, and accountability. In fact, the engineer battalion is best suited with expertise and resources to provide support in Class III, V, IX, and maintenance.

Procedures: Engineer commanders, who also support maneuver commanders and have special staff responsibility, should heed doctrinal guidance of Chapter 2**, FM 5-100, *Engineer Operations***, with regard to organizing engineer forces and recommending command and support relationships. Engineer leaders should check themselves by asking:

- Why was a particular engineer force task-organized to a maneuver commander?
- How did the maneuver commander wargame employment and what were the results?
- Is the command and support relationship, in fact, proper for the envisioned employment?

(TA.4.2.1 Review Current Situation)

TREND 12: (LTP) Casualty assessments and battle damage assessments (BDAs).

PROBLEM: During the brigade planning process, most units do not report realistic casualty or battle damage assessments. Some units do not complete these assessments at all.

RESULTS:

1. Poor assessments contribute to commander's inaccurate delineation of available combat power.

2. Medical assets cannot be arrayed to support medical evacuation.

Techniques:

1. At each phase or critical event in the planning process, the S1 should give a realistic casualty assessment and the S4 should provide the BDA.

2. The S2 should provide the BDA on the OPFOR. This will give the brigade commander an accurate picture of the available combat power vs. enemy's combat power.

3. Medical planners who train at NTC must understand that casualty assessments and BDA are skewed. We often do not stop operations when units are rendered combat ineffective and are not capable of sustaining further combat operations. As a general rule, they should plan for mass casualty situations.

4. See **CALL Quarterly Bulletin 95-11**, "Brigade Rear Operations: A Force Protection Dilemma" and **CALL Newsletter 97-14, *NTC Goldminer's TTPs for CSS***.

(TA.4.2.1 Review Current Situation)

TREND 13: Battle staff mission analysis. Mission analysis is rarely conducted as an integrated battle staff function.

PROBLEMS:

1. The staff is seldom briefed on the mission analysis prior to the initial brief to the commander.
2. The battle staff does not:
   a. Meet at the main CP.
   b. Receive an overall brief of the upcoming operation by the task force XO or assistant S3.
   c. Conduct a mission analysis of their proponent BOS while the task force commander, S3, and FSO are at the brigade receiving the brigade order.
3. Frequently, the ADO and logisticians and other attached staff officers are not informed that the main CP has received the order and that the mission analysis is going to be conducted.

Techniques:

1. The battle staff should conduct mission analysis, integrating all the key players as outlined in ST 100-9 and several other field manuals. This initial step in the decision-making process focuses the staff on the upcoming operation and provides information on tasks they must accomplish according to the brigade OPORD.
2. Refer **to CALL Newsletter 95-12 Update, *Military Decision Making: "Abbreviated Planning."***

(TA.4.2.1.1 Analyze Mission)

TREND 14: Signal officer (SIGO) mission analysis. Battalion/brigade SIGOs too often do not conduct a thorough mission analysis prior to the execution phase of some missions. They do fix problems that develop, but many of those problems could have been avoided had they anticipated them (e.g., developing a back-up retrans, ensuring MSRT coverage in the TOC, and moving personnel to best support the mission).

Technique: The SIGO should thoroughly analyze the unit's mission, determine the elements critical for success, and assign resources to ensure achievement of the commander's intent.

(TA.4.2.1.1 Analyze Mission)

TREND 15: Logistics, personnel, and casualty estimates.

PROBLEMS:

1. Task force CSS elements frequently make no effort to conduct either a formal or informal logistics, casualty, or personnel estimate.

2. Units conduct the planning process with no consideration of the current maintenance posture or projected combat power in the next 6, 12, or 24 hours.

3. Units do not balance anticipated casualties against their available evacuation resources, do not estimate casualty densities, or identify likely casualty zones.

RESULTS:

1. CSS units are unable to identify key logistical shortcomings and tactical resupply requirements, or consider how to resolve these shortcomings.

2. Units enter the COA development and wargaming process with a distorted view of potential combat power.

3. Shortcomings in MEDEVAC capabilities are not identified.

4. Requirements for, positioning of, and command and control requirements for nonstandard MEDEVAC assets are not identified.

5. Soldiers become DOW who could otherwise have been saved.

Techniques:

1. Incorporate estimates into the staff planning process and *train at **Home Station***.

2. Involve the S1, BMO, and medical platoon in the CSS estimate.

(TA.4.2.2 Project Future Requirements)

TREND 16: Task force predictive analysis.

PROBLEM: The main CP is rarely able to provide the task force commander with a predictive analysis during the fight. The main CP is not able to:

- Analyze information that they receive.
- Provide the commander with a picture of what the enemy will do.
- Make recommendations.

Techniques:

1. The battle staff should assist the commander by providing him with a clear picture of current and future events and COAs to assist him in the fight. The event matrix, SITEMP, and decision support matrix are tools for tracking events and making recommendations.

2. The task force XO, S2, assistant, and FSE need to track the battle at the map board or table and think one step ahead of friendly/enemy forces.

(TA.4.2.2 Project Future Requirements)

TREND 17: Maintenance planning at the task force (TF) level.

PROBLEM: The battalion maintenance officer (BMO) is frequently left out of task force planning, OPORD preparation, and the rehearsal process.

RESULT: The BMO, unit maintenance collection point (UMCP) personnel, and forward recovery teams are not aware of the enemy situation or the task force mission.

Techniques:

1. The BMO should be included in the planning process. At a minimum, there must be a maintenance representative for the task force commander or TOC.

2. At the end of each battle, the task force must focus on the combat power that could be developed over the next 2, 6, and 12-hour periods using sound maintenance practices.

(TA.4.3 Determine Actions)

TREND 18: Planning for employment of attack helicopters. Commanders (air and ground) do not effectively mass the combat power of attack helicopters.

PROBLEMS:

1. Typically, commanders and their battle staffs fail to accurately assess the threat, identify the decisive point, build a collection plan to confirm the threat's scheme of maneuver, and develop triggers for the employment of attack helicopters.

2. Normally, an attack battalion is assigned numerous missions encompassing the entire width and depth of the battlefield.

RESULTS:

1. The battalion executes numerous "911" missions with poor situational awareness of the threat and friendly forces (resulting in fratricide or excessive aircraft losses).

2. The collection plan does not support the readiness condition sequencing and employment of attack aircraft, which causes the aircraft to remain at higher readiness levels than necessary and imposes unplanned refuel requirements before the mission is executed.

3. Poor triggers cause premature or late commitment of attack helicopters.

Techniques:

1. *Plan*: Attack aviation needs to be integrated into the ground scheme of maneuver during the wargaming process.

   a. Commanders should identify the decisive point and the task and purpose of attack helicopters in his guidance to the battle staff.

   b. Based upon the commander's guidance and the wargame results, the S2 should refine the collection plan to support the commitment of attack helicopters.

   c. A competent LNO who has the authority to speak for the attack aviation commander must participate in the BCT battle staff's MDMP to ensure the proper employment of attack helicopters.

2. *Prepare*: Attack aviation commanders need to be part of the ground rehearsal. Their maneuver graphics and decision points need to be discussed during the rehearsal to ensure all commanders understand the conditions for commitment of attack aviation and their maneuver plan. This also allows synchronization and redundant eyes on decision points and triggers.

3. *Execute*: The attack battalion TAC should be collocated with the BCT TAC to facilitate situational awareness and anticipate employment. Additionally, attack company commanders need to be prepared to monitor the ground maneuver unit's command net to synchronize ground and air combat power and reduce the risk of fratricide.

(TA.4.3 Determine Actions)

TREND 19: Task force integration of CSS into the Military Decision-Making Process (MDMP). Task force planning cells and chain of command display an indifference to CSS integration and do not supervise the BOS, resulting in a lack of integration among the CSS staff and their products.

PROBLEMS:

1. The S4 is not fully integrated into the planning process at the task force level. While the S4 is present at times for mission analysis, he is not fully integrated into any formal process and in effect is not part of the battle staff.
2. The S4 and other CSS players are not included in COA development or the wargaming process.
3. The S4 often conducts his own CSS mission analysis at a separate location (CTCP) and includes only some key CSS players in this process.
4. The S4 writes an OPORD Paragraph 4 and issues this in the task force orders process; however, there is no identification of who has ownership for the CSS players (support platoon, medical platoon, BMO, chaplain, S1) and who is responsible for delivering these key players an OPORD. The trend is that the S4 does *not* take ownership of these players and does *not* give an OPORD to the CSS players.
5. CSS rehearsals are hit or miss and not an institutional part of task force operations, and when they are conducted, they are not to standard.
6. CSS annexes are not produced.
7. CSS graphics continue to be inadequate and are incomplete. Graphics do not include main and alternate routes (MSRs and ASRs), dirty routes, decontamination points, aid stations, maintenance collection points, graves registration points, casualty collection points, etc.

RESULTS:

1. Lack of integration results in an obvious disconnect between the battle staff and the CSS side of the planning process. Ultimately, this disconnect results in a CSS plan that does not effectively support the task force scheme of maneuver.
2. CSS sub-elements are left to fend for themselves, are not read in on the plan, and do not have adequate situational awareness to be effective.

Techniques:

1. Mirror the task force maneuver format for the orders process and state the task and purpose of each CSS asset.
2. Clarify which unit is responsible for supporting another and when that support begins and ends.
3. Ensure that the CSS BOS is integrated into the task force orders process and that the S4 issues an order to subordinate leaders and soldiers. He must *issue a five-paragraph order* to the CSS operators to address <u>how</u> the CSS plan will happen.
    a. At the task force orders process, the S4's target audience is the company commanders, to whom he tells when and where assets will be. The "how" of the operation is not addressed.

b. If the key CSS players are not integrated fully into the task force orders process, they will not know the plan. An OPORD delivered by the S4 to the CSS players will fill this void.

4. Once all the players know the plan, conduct a CSS rehearsal. *Do not wait until the rehearsal to develop the plan.*

5. The problem with inadequate graphics can be fixed by implementing a checklist and following it. Develop the checklist during a properly conducted mission analysis, identifying all required CSS control measures and graphic symbols. Make sure the S4 has the checklist for reference.

(TA.4.3 Determine Actions)

TREND 20: Integration of the signal officer (SIGO) into the Military Decision-Making Process (MDMP).

PROBLEM: Task forces seldom integrate the SIGO into the planning process early enough to have him develop a plan and to present recommendations for the command and control assets.

Techniques:

1. The task force should integrate the signal officer into the planning process at the early stages.

2. The SIGO and NCOs can make a tentative plan as long as they have a general idea of the enemy situation, friendly situation, and the commander's intent.

a. The executive officer or the operations officer should review this tentative command and control plan.

b. The signal officer, at the operations order and at the rehearsal, should brief the revised and final plan, including the locations of the TOC, TAC, Jump TOC, Retrans Systems, MSE Systems, the commander, the operations officer, and special emitters like EPLRS, TAC SAT, TAC LAN, etc.

(TA.4.3 Determine Actions)

TREND 21: Fire Direction Officer (FDO) integration into the Military Decision-making Process (MDMP).

PROBLEM: The FDO's responsibilities during the staff planning process are not well defined.

RESULT: The staff does not analyze the Essential Fire Support Tasks (EFSTs) further than broad statements such as suppress lead MRBs, attrit the lead MRB, and provide smoke, FASCAM, Copperhead, etc.

Techniques: *All* members of the battalion staff must have a good understanding of the staff planning process and *all* members must contribute to varying degrees. The information and tools each member should bring to the planning table must be defined.

1. The FDO can contribute significantly to the planning process by reviewing the following information from the maneuver order:

a. The commander's intent or concept of fires: This answers when and where the commander wants fire support, why he wants fire support, and what he desires in the way of effects, duration, and timing.

b. Commander's criteria (compilation of the following):

- Attack guidance matrix: identifies desired effects and when to attack a target type.

- HPTs: identifies the priority to attach a target type by FS means.

c. Target list: Identifies where they plan to attack target types.

d. FS execution matrix (FSEM): Identifies how the scheme of fires will achieve the commander's intent.

2. By front loading the planning process with an understanding of these areas, the FDO can determine:

a. The *number of rounds or volleys* necessary to achieve the commander's intent. For example, if the commander wants to destroy an MRC west of PL EXCALIBUR with artillery, the S2 can provide the number and types of vehicles that an MRC would consist of, and the FDO can determine the volume of fire necessary to achieve the effect.

b. *Where* the commander wants to use artillery to achieve his intent. Based on the target list and the FSEM, the FDO can determine *when* the commander plans to achieve his effect. This can impact on the artillery's requirement to position units forward to mass or offset guns for special missions. It can also contribute to identification of constraints and limitations during the mission analysis that the FSCOORD may have to resolve or consider.

3. After COA analysis, comparison, and decision brief, the staff begins a deliberate wargame of the selected COA. During this phase, the FDO focuses on the entire scheme of fires, to include the specifics of the EFST (i.e., FASCAM aimpoints and number and type of rounds per aimpoint; Copperhead EAs and artillery positions; smoke aimpoints and number of rounds; mass missions; and munitions and volume required to fire).

a. The FS matrix is a systematic approach to understanding the scheme of fires. Used during the wargame, it focuses the staff on keeping elements that must be thoroughly understood. This includes triggers, FS event, observers, intent of the event, effects, and units/munitions to fire.

b. By the end of the wargame, all munitions, ammo resupply, artillery, and maneuver schemes of movement are synchronized with each other and against enemy COAs. The FDO should point out the critical areas within the scheme of fires where any deviation from the plan would be difficult to execute.

(TA.4.3 Determine Actions)

TREND 22: CSS Integration into the battalion Military Decision-Making Process (MDMP)

PROBLEMS:

1. Most battalions demonstrate the ability to plan, prepare, execute, and reconstitute logistics. However, CSS operations are seldom integrated into the battalion's battle rhythm and do not facilitate the battalion's tactical posture.

2. The S4, S1, and XO are not primary players during the orders process. CSS is often an afterthought and seldom addressed.

3. The S4 often leaves the wargame to gather information or solve problems that should be handled by the ALOC.

4. CSS is briefed but rarely rehearsed during battalion rehearsals. Who, what, when, where, and how should be briefed during the battalion rock drill for R3SP, LRPs, medical support plan, MSRs, resupply triggers, and reconstitution of battalion assets.

5. The S4s are not using a CSS execution matrix and their CSS plan is rarely rehearsed.

6. The S4s are not using a checklist during the battalion orders process, hindering their ability to both validate and synchronize the plan and ensure it supports the Essential Field Artillery Tasks (EFATs).

7. The S3 does not provide timely ammunition guidance or establish future requirements thus hindering the S4's ability to develop an adequate resupply plan.

8. Battlefield calculus is rarely conducted and ammunition requirements/triggers are not clearly identified (155mm).

Techniques:

1. A battalion logistician (S4/S1 or battalion XO) should be present at all battalion orders drills, aggressively representing the CSS arena, and ensuring integration and synchronization of CSS operations. Better integration of CSS operations provides necessary time to reconstitute Class III (B) and V and reconfigure ammunition, thus posturing the battalion's CSS for the future battle.

2. The battalion XO orchestrates the orders process by acting as the chief of staff, ensuring all of the necessary players are present and participating.

3. The S4 must know the battalion's current logistical status before conducting mission analysis.

4. Develop a battalion OPORD CSS checklist that lists critical CSS functions which must occur before, during, and post battle, including grid locations of CSS entities. The list should be completed by phases of the battle and should include:

   a. Logistics essential support tasks (method, purpose, end state).

   b. Specific CSS triggers (Class III [B], V, CASEVAC, recovery, and CAT movement),

   c. MSR and ASR.

   d. Location of CAT, BAS, AXPs, R3SP, UMCP, chemical CCPs, and patient decon sites.

5. At a minimum, answer the essential field artillery tasks (EFATs) before leaving the battalion wargaming process and include them in any rehearsals.

6. Clear, ***timely ammunition guidance*** from the S3, better battlefield calculus, and ammunition positioning improves ammunition operations.

7. Focus on integrating resupply operations with the battalion operation whether it be centralized or decentralized. This facilitates resupply operations in a more stable environment with less distraction and economizes the use of battalion logistical assets.

8. The S4 should maintain situational awareness and status of logistical assets and provide the S3 advice on execution of the logistics operations.

TREND 23 : Brigade fire support planning.

PROBLEM: Although brigade fire support elements normally adequately prepare the FSOs/FSEs for participating in the planning process, they often struggle with providing timely and essential information to the battalion/TF FSOs to permit concurrent planning. The FSEs are hesitant to:

- Plan fires in support of the close fight.
- Anticipate and provide for the transition from the deep to the close fight.
- Assign specific tasks to battalion FSEs for execution.

RESULT: The resulting fire support plans lack sufficient detail, flexibility, and the synchronization necessary to enable the brigade to attack the enemy throughout the depth of the battlefield and appear to the enemy as fighting one continuous fight.

Techniques:

1. Upon receipt of the new mission, the FSE begins a battle drill to confirm the current status of the fire support system and to gather the other needed inputs for the first step in fire support planning. These are:
    a. Higher WARNO or order.
    b. Facts from FA battalion, ALO, others.
    c. Facts from higher/subordinate FSE and FIST.
    d. IPB products.
    e. Enemy COAs as developed by S2.
    f. HVTs by enemy phase or critical event.
2. The FSO must:
    a. Understand the higher headquarters maneuver and fire support plan.
    b. Organize and analyze facts.
    c. Identify specified and implied tasks.
    d. Translate status of assets into capabilities and limitations.
    e. Analyze effects of IPB on fire support.
3. The FSO should brief the results of his mission analysis to the commander and conclude his brief with recommended essential fire support tasks (EFSTs). Prior to COA development, the FSO should receive the commander's approved EFSTs and issue a WARNO to his subordinate FSOs **and** to the FA battalion.
4. As COA development begins, the FSO should conceptualize how to integrate fires into the developing COA. The commander's guidance becomes the start point for where and how the FSO allocates assets to each COA.
5. The results of the mission analysis become the foundation for fire support COA development. The FSO uses these results to plan the method for accomplishing the EFSTs. As a minimum, the fire support portion of a COA allocates acquisition assets (collection plan), attack assets, planned attack locations (target/TAI/EA), and the sequence (concept of fires) of these attacks required to achieve the effects specified in the EFSTs.

6. The desired output of COA development is a draft fire support plan. The draft fire support plan provides the sequence of EFSTs and outlines the task, purpose, method, and end state for each EFST of the operation. The plan should include:

a. Concept of fires/draft fires paragraph.
b. Draft fire support execution matrix.
c. Draft target list worksheet and overlay.
d. Draft target synchronization matrix.
e. Collection/R&S plan.

7. The more complete the fire support plan is before COA analysis and comparison, the more efficient and effective the wargame. The wargame provides final detail and refinement, validates capabilities, and synchronizes the fire support plan. Based on issues identified by the wargame, the FSO can modify the draft fire support plan and products to improve the plan. The wargame also provides a means to test the strength of the plan and build in flexibility by identifying decisions and branches for the fire support plan. At the conclusion of the wargame, the FSO should have:

a. Final fires paragraph.
b. Final fire support execution matrix.
c. Final target list and overlay.
d. Final scheme of fires.
e. Final target synchronization matrix.

8. Using a cartoon sketch, map overlay, or terrain model can help convey the details of the fire support plan more clearly. Once approved, the consolidated products become the fire support annex and are added to the maneuver order.

(TA.4.3 Determine Actions)

TREND 24: Completion of an engineer battlefield assessment (EBA) as part of the Military Decision-Making Process (MDMP).

PROBLEM: Most assistant battalion engineers (ABEs) are proficient in completing an engineer battlefield assessment (EBA) in accordance with FM 5-71-3 prior to arriving at the NTC. However, due to battlefield friction, reduced planning timelines, and simultaneous monitoring of current operations, EBAs are generally not conducted to standard.

Techniques:

1. ABE sections and engineer battalion plans sections should incorporate the time constraints, battlefield friction, and stresses of continuous operations into their Home Station training.

2. Detailed SOPs, to include distribution of labor within the sections, are a useful tool as well as cross-training among the sections to allow leaders more flexibility in who completes/assists in the completion of the EBA.

(TA.4.3 Determine Actions)

TREND 25: Engineer planning and planning products. Engineer staffs are prepared to conduct *horizontal* planning to a degree; however, the *vertical* planning process remains unstructured and not in accordance with **FM 5-71-3**.

PROBLEMS:

1. The engineer battalion XO does not closely coordinate with the battalion S3 and is seldom able to establish any type of battalion planning timeline.
2. Although the battalion S3, S2, and the assistant battalion engineer (ABE) participate together in brigade mission analysis and the brigade wargaming process, critical steps in the development of the engineer estimate are missing, as the engineer battalion is not planning concurrently.
3. The brigade engineer (battalion commander), with his staff, is not developing a detailed scheme of engineer operations (SOEO) to support each maneuver course of action (COA) and then integrating the SOEO for the selected COA into brigade wargaming.
4. The engineer battalion conducts its own separate wargame and identifies critical vertical tasks *after* the brigade plan is completed, so the tasks are not integrated or coordinated.

RESULTS:

1. Key engineer tasks are left out of both the brigade's SOEO and the engineer battalion's plan as each works through his respective processes.
2. Published engineer orders lack sufficient detail and specificity to conduct successful operations. Since the engineer battalion did not conduct a structured planning process, the battalion order is merely a plagiarized version of the engineer annex. It does not provide the detailed subunit orders and service support instructions to units remaining under battalion control.
3. The brigade engineer annex is incomplete. The annex does not include all information critical to the brigade engineer plan or required for subordinate engineer planning.

Techniques:

1. Based upon the unique relationship of having an engineer battalion whose assets are usually task organized under maneuver battalion control, the engineer battalion must conduct parallel planning with the supported maneuver brigade. Engineer parallel planning requires a focus on both vertical planning (identification, integration, synchronization of tasks to support the engineer mission) and horizontal planning (integration, synchronization of tasks to support the maneuver brigade).
2. The engineer battalion, with the assistant battalion engineer (ABE), should study and know the planning process as outlined in FM 5-71-3. The battalion XO should take ownership of how planning is structured within the engineer battalion.
3. The XO and S3 must coordinate critical junctures when the engineer staff is required to supplement S3/ABE efforts in the brigade planning process. This will drive development of the battalion planning timeline.

4. Once the timeline is set, the S3/XO must determine what products will result from each part of the process and whether they come from the battalion staff or the S3/S2/ABE. There should be a continuous exchange of products/information between these two cells to facilitate effective engineer planning for both the maneuver brigade and the engineer battalion.

(TA.4.3 Determine Actions)

TREND 26: (LTP) Brigade Staff understanding of the Military Decision-Making Process (MDMP).

PROBLEMS:

1. Prior to LTP, active component (AC) brigade staff members have only approximately three to five months time in position.
2. During unit in-briefs, staffs report that their Home Station training had not focused on "staff planning procedures." In fact, most AC brigade staffs state that they have had little recent exposure to the Military Decision-Making Process (MDMP) at all.
3. Reserve component (RC) staffs *have a tough time applying planning TTP to doctrine* to be successful in a time constrained, planning environment.
4. *All* brigades attending LTP come without a working or validated planning standard operating procedure (SOP) or tactical SOP (TACSOP).

RESULTS:

1. Planning at the staff level is slow and inefficient due to individual staff inexperience.
2. The commander's staffs have not yet had the time or opportunity to define their roles, responsibilities, and procedures in MDMP.
3. Staff officers cannot reference their unit's SOP to understand how to accomplish their individual and collective tasks.
4. The XO's and staff's first MDMP attempts results in *trial and error* approach. Their time is consumed in refining staff procedural issues and not the tactical issues.

Techniques:

1. Regardless of how well the staff understands doctrinal planning procedures, they must collectively experience the process before they become efficient and proficient planners. LTP provides time away from Home Station training detractors for the XO and staff to work on those staff planning skills.
2. When brigade commanders receive the NTC CG's 120-day LTP letter, they have an opportunity to input their training objectives and schedule training for their brigade.
   a. If the staff has had little experience with planning, use the "crawl, walk, run" training approach.
   b. Schedule time for the battalion/brigade XOs and staff members to review unit planning procedures.
   c. Focus on the AAR process. The *Lessons Learned* from the individual and collective analysis of what happened, why it happened, and solutions found in that process is the single most effective way the staff will improve its ability to function.

3. Center the recons on the terrain that the unit is planning to fight in the LTP order. With sufficient time, Operations Group can deconflict the rotational and LTP schedule and develop the order on terrain available on days of the recon. Unit commanders and staffs can focus their recons on the terrain as it relates to the order and make better use of their recon time. If there is specific terrain that the brigade commander wants his units to see, then he should schedule it at another time during the training.

4. In an effort to save time, brigades have tasked subordinate units to see specific terrain in their AOI. In the LTP, brigade recon days are generally centralized at brigade level, offering the brigade commander time to address issues and concerns to the entire brigade. Once the commander has completed his recon objectives, the LTP will decentralize the recon to task force and company level. Assigning specific recon objectives to subordinate commanders will prevent an unfocused recon. Again, there is time in the schedule to recon other maneuver areas if the brigade commander plans wisely.

5. The best use of staff AARs is afforded to units who elect to conduct two orders during their LTP session. Here is why. The first order allows the XO and staff to work on the process and staff procedures. The AAR, followed by another planning exercise, allows the staff to immediately train the lessons learned and not weeks after the staff returns to home station. Units electing the two-order option usually plan the first two and fight the last on the JANUS system. Unit staffs that exercise the two-order option have had tremendous improvements. Once again, scheduling the two-order option must be carefully planned and scheduled well prior to the unit's LTP arrival date.

6. All units conduct at least one brigade staff AAR and one brigade execution AAR while at LTP. While the LTP theater is fairly hi-tech, it does not provide units with recorded AARs to take home. Be sure to have someone appointed as scribe during the AAR to record the valuable lessons learned.

7. Plan and schedule early.

(TA.4.3 Determine Actions)

TREND 27: (LTP) Brigade planning for Combat Observation Lasing Team (COLT) operations. Brigade planning, preparation, and execution of COLTs are not integrated into the scheme of fires.

PROBLEMS:

1. COLT insertions are normally planned fairly well, but detailed task/purpose for each COLT is not delineated during the brigade wargame.

2. Brigades often do not plan the *attack* function for the COLT, thus degrading the COLT's ability to trigger fires.

3. The brigade often does not perform battlefield calculus and analysis of where the enemy is in relation to COLT observation posts (OPs). This negates the brigade's ability to use the COLT to employ Copperhead munitions; all conditions necessary to execute the Copperhead missions cannot be met.

RESULT: COLTs become another source for reporting enemy movement and not what is most desirable…a killer.

Techniques:

1. The entire staff should plan for COLT employment.
2. The fire support officer (FSO) and S2 need to fully understand the capabilities and limitations of COLTs. Specifically, they must understand the ranges at which the COLT can actually acquire a particular target and under different conditions.
3. The following is a good outline to follow for the employment of COLTs:

STEP 1- DETERMINE THE NEED FOR AN OP

Once an NAI or TAI is established, an "observer" must be identified. Understanding what is to be done at the NAI or TAI is critical to assigning the proper observer, determining its position, and ensuring required resolution.

STEP 2- CONDUCT TERRAIN ANALYSIS

Analyze the terrain to identify possible OPs. Terrabase is an effective tool but is time intensive. A good technique is to input the NAI or TAI as OPs and select your OPs from where converging lines of sight (LOS) exist.

STEP 3- ALLOCATE THE ASSET

The asset assigned to an OP is based on the mission to be conducted and the capabilities of the asset. If Copperhead is to be designated from the OP, then a laser-equipped observer must be assigned. If obstacle reconnaissance is the mission, then a SAPPER scout may be a better choice.

STEP 4- SELECT THE OP

The OP should be selected from the possible OPs identified in the terrain analysis. Again, the mission and capabilities must be considered, including the factors of the Copperhead coverage template, effects of terrain and weather, survivability, and the enemy situation. Alternate OPs should be identified as back-up if the primary is untenable.

STEP 5- PLAN FOR THE INSERTION/ INFILTRATION

Plan it like any maneuver operation. Determine the method: air, mounted, or dismounted. The OP's mission and the enemy situation drive this decision. Plan routes, check points, PZs, LZs, false insertions, air corridors, extraction, resupply, etc. Issue a detailed WARNO to the asset(s) selected.

STEP 6- MAKE COORDINATION

Forward passage, aircraft, retrans, and terrain: all must be coordinated.

STEP 7- SUPPORT THE INSERTION/ INFILTRATION

Indirect fires: SEAD, deception fires, defensive fires to support the OP, force protection zones.
IEW support: Monitor recon nets to determine if insertion has been detected, jam enemy counter-recon nets or ADA nets as appropriate.
Logistics support: Resupply and medical plan must be established. Consider use of caches. Coordinate with/task maneuver units to recover compromised assets.

STEP 8- PREPARE

COLT orders, backbriefs, and rehearsal. Conduct PCCs/PCIs.

STEP 9- EXECUTION

COLTs must have the skills to execute air insertions and infiltration and to stay alive. Brigades must oversee this insertion/infiltration and track it like any maneuver operation.

(TA.4.3 Determine Actions)

TREND 28: (LTP) Task force completion of the Military Decision-Making Process (MDMP) in a time-constrained environment.

PROBLEM: Task forces are well aware of the necessity to perform MDMP in a time-constrained environment during their NTC rotation. However, far too many task force staffs arrive for their LTP experience without *first* making an assessment of their ability to perform the MDMP, then they attempt to force their staffs towards a performance standard that they are unable to achieve.

RESULT: The frustration of identifying these training weaknesses in the midst of the LTP planning process does little to aid the task force staff in becoming more proficient with the MDMP in a time-constrained environment. When a task force staff has difficulty performing the MDMP at all, attempting to conduct it rapidly too often leaves the task force with a plan that lacks both detail and synchronization.

Technique: Task force XOs should have a solid understanding of where their staffs are in terms of their ability to perform the MDMP before they arrive at LTP. By doing so, they can then accurately structure the pace of planning they wish to perform for their single tactical mission at LTP and enhance their rotation training preparation.

(TA.4.3 Determine Actions)

TREND 29: (LTP) CSS integration into the brigade planning process.

PROBLEM: Some units this quarter have not considered bringing the necessary personnel to LTP to effectively integrate CSS into the brigade planning process.

Technique: Brigade commanders wanting to maximize their unit's training time need to bring the right players. Doctrinally, the planners are the brigade's S1, S4, surgeon, and the FSB SPO. The brigade surgeon is not trained as a planner, so the C Medical Company Commander is the logical medical planner. Thus, for brigade CSS planners, the brigade's S1 and S4, FSB SPO, and C Medical Commander must attend LTP to achieve full training value.

(TA.4.3 Determine Actions)

TREND 30: (LTP) Rear operations planning.

PROBLEM: Most brigade commanders state that they are willing to "accept risk in the rear." Staffs, more often than not, translate "risks" into little or no planning effort devoted to the rear operation. Staffs, instead, concentrate their planning efforts to the deep and close operation.

Technique: The brigade commander should assign the rear operation planning to the forward support battalion (FSB) commander. The FSB commander, S3, S2, and the brigade support area (BSA) special staff execute parallel planning, using the brigade S4 and FSB SPO (or brigade logistics planning officer) as the liaison officer during the brigade planning process. This way

the BSA staff gets current information (such as assets allocated to the rear operation from brigade and the triggers for these assets) and the brigade gets the rear operation plan (to include risk assessment) for their wargaming process.

(TA.4.3 Determine Actions)

TREND 31: Task force fire support observer plans.

PROBLEM: Task force observer plans are usually developed *after* wargaming.

RESULT: Observer plans lack the detail and synchronization required to ensure observers are in position and prepared to execute the scheme of fires.

Techniques:

1. Observation planning should *begin* during course of action (COA) development and be *refined* during the wargaming process.

Step 1. The FSO must clearly identify the task force essential fire support tasks (EFSTs) in terms of task, purpose, method, and end state. By doing this, the FSO can concentrate on how and where to position available observers to best accomplish the EFSTs.

Step 2. The FSO must coordinate with the task force S2 to determine enemy information as portrayed in the situational and event templates. This helps the FSO to visualize what the enemy formations will look like in relation to the terrain and when/where enemy actions/events should occur in terms of time and space. Additionally, the S2 can provide a through terrain analysis to help the FSO in determining possible OP locations in terms of line-of-sight, trafficability, and survivability.

Step 3. The products included in the task force OPORD should include detailed guidance for each planned observation post (OP). Address the following items:

- OP location with visibility/equipment requirements.
- Time to occupy (friendly/enemy event).
- Route.
- EFST to execute (specific and detailed task and purpose).
- Security requirements/arrangements.
- Disengagement criteria.

2. The FSO should develop a check list of OP selection tasks for inclusion in the SOP. An example listing of tasks follows:

Step 1. Identify the requirements for an OP during the wargaming. The OP may be required to execute the R&S plan or to trigger fire support targets.

Step 2. Conduct terrain analysis. Terrabase is an effective tool to accomplish this task. Run a shot from the NAI/TAI or the target to determine possible OP locations. This method saves time by identifying all possible OP locations.

Step 3. Allocate assets. Choose based on the mission of the OP. If Copperhead is used, a G/VLLD equipped observer is necessary; a recon observer may need SAPPERs; a surveillance OP may use scouts. Consider brigade COLTs and brigade reconnaissance teams (BRTs) in addition to task force observers or scouts.

Step 4. Select the OP site. Select from likely OP sites developed during terrain analysis.

Consider mission and capabilities of the asset (i.e., angle-T, limited visibility, enemy situation).
Step 5. Plan movement and occupation of OPs within the constraints of the scheme of maneuver.
Step 6. If the observer is a company/team FIST, specify tasks to subordinate units responsible for executing.
Step 7. Confirm requirements of observation plan and disseminate changes.
Step 8. Facilitate execution.

(TA.4.3.2 Develop Courses of Action)

TREND 32: Course of Action (COA) development.

PROBLEMS:

1. Task force S3s do not understand how to develop COAs based on the commander's decisive point and are not able to define in doctrinal terms what they want the company/teams to do.
2. COAs are frequently not developed with the S2's SITEMP or on a map where the terrain can be visualized.

Procedures: Doctrinal references are FM 7-20 and FM 101-5-1.

a. Chapter 2 of **FM 7-20** provides guidance to commanders and staffs on the development of COAs.

b. **FM 101-5-1** provides the correct doctrinal definitions that should be used when assigning company/team tasks and purposes.

(TA.4.3.2 Develop Courses of Action)

TREND 33: The wargaming phase of the Military Decision-Making Process (MDMP).

PROBLEMS:

1. Units have limited time training as a complete staff on the MDMP.
2. Units have the most difficulty with wargaming. During a rotation, most units improve their performance with the various phases of the MDMP with wargaming being the one exception.
3. Units attempt to wargame before fully developing a complete COA. Units develop a COA based off a vague concept directed by the task force commander.
4. Units seldom wargame against several enemy COAs.
5. Wargaming methods detailed in **FM 101-5** are seldom incorporated into the process because the incomplete COA will not allow the unit to select a method outlined in the FM.
6. Units have difficulty with recording wargame results. Units have not trained adequately on the methods outlined in **FM 101-5** or developed SOPs to record and display the results.

Techniques:

1. Units must train on the MDMP with emphasis on wargaming. The wargame is a disciplined process with rules and steps that attempt to visualize the flow of the battle.

2. Units must become familiar with the wargaming techniques and recording methods outlined in **FM 101-5**. A unit SOP can be developed to enhance the process.

3. A complete COA must be developed prior to wargaming. If one friendly COA is developed in an effort to save time, the unit should wargame against several enemy COAs in order to develop branches to the base plan.

4. Adhering to the established timeline allows the staff to remain focused during the process and forces the staff to prioritize the amount of detail given to the effort.

5. The wargame should result in refining or modifying the COA, to include identifying branches and sequels that become on-order or be-prepared missions. It should refine location and timing of the decision point.

6. A synchronization matrix and decision support template (DST) should also be a result of the process. It should project the percentage of total enemy forces defeated in each critical event.

(TA.4.3.3 Analyze Courses of Action)

TREND 34: Wargaming. Wargaming is not focused and rarely synchronizes the task force plan.

PROBLEMS:

1. The task force XO does not facilitate the process, and the battle staff *loses its focus* on the critical events that need to be wargamed and the relationship between events and the decisive point.

2. The timeline is not managed effectively, and the wargame ends up taking well over half of the available time.

Techniques:

1. The task force XO or S3 should take charge of the wargaming process to ensure that the battle staff stays focused on the critical events and the decisive point.

2. Use a synchronization matrix to help facilitate and record events that are being wargamed by phase and synchronized by BOS.

3. Staffs should take a few minutes prior to initiating the wargame (while plans CPTs are gathering tools for the wargame) to ensure each BOS representative understands the concept for his piece of the fight.

(TA.4.3.3 Analyze Courses of Action)

TREND 35: (LTP) Task force wargaming. The wargaming phase of the Military Decision-Making Process (MDMP) is habitually a weakness for the task force staff.

PROBLEM: Most task force XOs and task force S3s have had little experience wargaming, and few have had experience wargaming in their current duty positions.

RESULT: This lack of experience results in an inability to organize an effective task force wargaming effort.

Techniques:

1. Determine what wargaming method/technique best accommodates the planning requirements of the unit.

2. Determine:

   a. Which staff members will attend.

   b. What products the staff must have in order to participate effectively in the wargaming effort.

   c. How the staff's input will be managed throughout the conduct of the wargame.

   d. How information developed from the wargame will be recorded.

   e. How the recorded information is applied to enhance the OPORD.

3. Consider how time will be managed as the wargame is conducted. Staffs have shown that they are most effective during the first 50 to 60 minutes of intensive wargaming, and beyond that, a significant degradation occurs in quality.

(TA.4.3.3 Analyze Courses of Action)

TREND 36: (LTP) Wargaming.

PROBLEM: Wargaming is the most difficult step in the Military Decision-Making Process (MDMP) for units to complete successfully. Units have continued to struggle with this training issue for the past 10 years.

Techniques:

1. Successful wargaming depends on the staff's ability to *complete* a course of action (COA). If the staff is spending a lot of *wargaming* time developing BOS task/purpose issues to support the COA, then they are not *wargaming*. Rather, they are still in the COA development step. You must support the COA with the BOS "how, what and where" before you can determine the "when" in wargaming.

2. Answer the following questions *prior* to wargaming to dramatically improve overall wargaming efficiency:

   a. Have all the BOS been integrated into the COA? If not, has the BOS been overlooked?

   b. Did the commander forget to address a BOS in his guidance? If so, find out why the staff member responsible for the BOS has not provided support for the COA.

   c. Does each BOS have a clear task and purpose for each critical event of the operation? If not, either the S3 or the BOS representative must define the task and purpose for the critical event.

3. References:

   a. **FM 101-5**, dated 31 May 97, pages 5-16 to 5-24.

   b. **CALL Pubs 97-9, 97-16, 97-17, and 98-4, *CTC Trends for NTC, with TTPs*.**

   c. **CALL Pub 95-12 Update, *Military Decision Making: "Abbreviated Planning."***

   d. NTC "How To" video, "*Wargaming*."

(TA.4.3.4 Compare Courses of Action)

TREND 37: Battalion maintenance officer (BMO) troop-leading procedures.

PROBLEM: The BMO does not use troop-leading procedures effectively or establish priorities of work at the Unit Maintenance Collection Point (UMCP).

a. Inadequate timelines.

b. Inadequate WARNOs and OPORDs.

c. Inadequate rehearsals.

d. Junior leaders are frequently prevented from conducting their own pre-combat checks (PCCs) and pre-combat inspections (PCIs) prior to each mission.

Techniques:

1. The BMO and the UMCP establish a timeline that can support the upcoming missions.
2. The BMO must ensure that the maintenance platoon understands the mission requirements.
3. Maintenance platoons need to stay aware of the tactical situation. The main focus is to get combat power back into the battle, and maintenance leaders must ensure mission accomplishment.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 38: Bradley Stinger Fighting Vehicle (BSFV) platoon troop-leading procedures.

PROBLEM: Air defense platoon leaders do not use troop-leading procedures or establish timelines effectively.

a. Situational awareness is lacking.

b. Hasty and inadequate OPORDs (do not include five paragraphs or a risk assessment).

c. Ineffective or nonexistent rehearsals.

d. Inadequate and missing graphics.

e. Late linkup with company/teams.

f. No face-to-face cross-talk between ADA section leaders and the element for which they are providing coverage.

Techniques:

1. Platoon leaders should follow troop-leading procedures, establish a timeline, and be persistent to follow it.
2. Delegate some tasks to NCOs within the platoon (i.e., graphics).
3. Develop portions of the platoon OPORD parallel with the planning process (i.e., paragraph 3 can be developed during the wargame process and paragraph 2 can be developed during mission analysis while cross-talk is being done with the S2).
4. The key is to find ways to save time and facilitate the 1/3 - 2/3 rule.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 39: Task force signal officer and NCOIC troop-leading procedures (TLPs).

PROBLEMS:

1. Many times the soldiers do not fully understand their mission, their reporting procedures, or their route. This creates confusion during the execution phases of missions.

2. There is poor situation awareness without TLP at every level. Placing the retrans system on the wrong slope of a hill will put the lives of the retrans team at great risk, as well as the lives of the soldiers the commander can no longer reach.

Technique: The SIGO, commo chief, and all the NCOs must exercise the TLP steps. They should be clear and concise when conducting a platoon or section OPORD. Signalers must fully understand the scheme of maneuver or the commander's intent in order to support the mission.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 40: Engineer unit troop-leading procedures (TLPs). Troop-leading procedures (TLPs) at both company and platoon level are often inadequate and lack the required substance to properly allow the company, platoon, and squad to succeed.

PROBLEMS:

1. TLPs are often overlooked and/or rushed to a point where they have no effect on the mission.

2. Engineer units often develop timelines (from already late maneuver timelines) that do not identify key engineer essential planning and execution tasks.

3. Development of a tentative plan usually falls short because of incomplete application or a misunderstanding by the company XO during the tactical planning process.

4. Generally, engineer company XOs do not identify essential, specified, and implied tasks that are critically important to mission accomplishment.

5. Unit orders lack clarity regarding the unit commander's intent, scheme of engineer operations, and sub-unit tasks.

6. Unit commanders misunderstand the importance of time management.

7. Rehearsals and backbriefs are executed poorly.

   a. Most units conduct confirmation briefs and backbriefs at maneuver, TF, and engineer company levels, but very seldom do engineer company commanders backbrief the engineer battalion commander and/or staff.

   b. When engineer company commanders conduct a backbrief, it is usually without established formats that prescribe what is to be included.

Techniques:

1. Two elements are absolutely critical to the successful execution of superbly executed TLPs--operational guidance and specific timelines. Commanders must command their company. Their focus should be on:

   a. Troop-leading procedures.

   b. Pre-combat checks/pre-combat inspections (PCCs/PCIs).

   c. Rehearsals.

d. Development of realistic timelines that promote unity, clarity, and synchronization within the company on the battlefield.

2. Commanders should train their XOs in the tactical planning process. This does not happen overnight, but rather with months of coaching, mentoring, and repeated, multiple warfighting experiences, coupled with focused candid feedback. The company XO needs to understand that he is a critical member of the combined arms team and must understand all aspects of tactical planning in order to effectively integrate and synchronize the mobility and survivability battlefield operating system (BOS).

3. **FM 5-100**, pg. 7-1 to 7-11, and **FM 71-123**, provide excellent cookbook approaches to tactical planning.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 41: Engineer battalion headquarters and headquarters company (HHC) troop-leading procedures (TLPs).

PROBLEM: Headquarters and headquarters company commanders have not been conducting troop-leading procedures (TLPs) after receiving engineer battalion operations orders (OPORDS) or forward support battalion (FSB) OPORDS.

Techniques:

1. The HHC commander must use TLPs with the estimate of the situation, METT-T, IPB products, and risk assessment products to develop a systematic approach to formulating tactical plans. Without using TLPs, the commander will have great difficulty commanding and controlling his company.

2. The HHC commander must use TLPs and risk assessment worksheets, no matter how abbreviated, to plan, coordinate, prepare, direct, and control the execution of CSS missions for every battalion mission. It is particularly important to issue an OPORD, even if it is given vocally, to focus subordinate's efforts.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 42: (LTP) Task force tactical SOPs (TACSOPs).

PROBLEM: Most task forces arrive at LTP with some form of a TACSOP, but it is either:

- newly created specifically for the upcoming NTC rotation,
- or it has been in the task force for years, and has not been recently reviewed,
- or, most often, it is not disseminated and seldom used as a legitimate document that governs the tactical operations of a unit.

Technique: To be beneficial during the NTC rotation, TACSOPs must be disseminated, trained, and adhered to closely throughout the Home Station train-up. Critical characteristics a TACSOP must possess to be adopted by task force operators include:

- Simplicity. TACSOPs have to be created with the understanding that integration in the task force will be dependent on the ability of tank and Bradley commanders to extract information quickly and conveniently. TACSOPs that are not simple are routinely ignored.

- User Friendliness. Available information that cannot be extracted quickly and easily is not applicable information to soldiers attempting to execute operations in a combat environment.

- Strict Focus. Many of the TACSOPs that are reviewed at LTP deal with a variety of procedures that are not tactical and are better suited in a task force's unit SOP. The TACSOP is not meant to answer every issue that is remotely associated with tactical operations. Task force commanders and XOs must closely edit these documents to ensure they do not become overly burdensome.

- Strict Enforcement. Develop and administer a test on the TACSOP.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 43: (LTP) Company Team SOPs.

PROBLEM: Too many company commanders do not bring their tactical SOPs (TACSOPs) to LTP. Those that do bring incomplete SOPs and are unfamiliar with their content.

RESULTS:

1. Company/team coaches cannot observe the efficient use of the unit's SOP and cannot make recommendations for improvements.
2. Commanders cannot review, test, and train with their SOPs while undergoing the unit's training.

Technique: Battalion commanders can maximize their subordinate's LTP training if company commanders bring a completed TACSOP.

(TA.4.4 Direct and Lead Subordinate Forces)

TREND 44: ADA platoon time management. ADA platoons, particularly the platoon leaders, are often not prepared to perform the air defense mission due to poor time management.

PROBLEMS:

1. The platoon leader's timeline seldom includes key tasks (i.e., orders issue, rehearsals, resupply, maintenance, boresite, link-up times with company/teams) or other specified tasks to be accomplished prior to mission.
2. The timeline seldom includes who will be responsible for performing tasks and conducting the checks.
3. Platoon SOPs are inadequate; they do not address priorities of work at squad level.
4. The platoon TACSOP is not being utilized.

Techniques:

1. The platoon leader must understand his responsibilities as both platoon leader and task force ADO, and balance his time between both.
2. Information must be pushed to the platoon despite the physical separation when the platoon leader is at the task force TOC. Use a LNO, PSG, or driver to push the information to the platoons from the TOC.

3. When involved in the TDMP with the task force, the platoon leader must delegate to his subordinates and specify tasks to be accomplished and who will check.

4. Use backward planning to prioritize tasks and allow subordinates the ability to develop their own timeline with any additional tasks at crew level. Many of the tasks that need to be accomplished during the preparation phase should be identified in the platoon TSOP, eliminating confusion and wasted time.

5. References:

- **FM 44-43,** ***BSFV Platoon and Squad Operations***
- **FM 44-100,** ***Air Defense Operations***

(TA.4.4.1 Prepare Plans or Orders)

TREND 45: Task force tactical operations center (TOC) displacement planning.

PROBLEMS:

1. Task forces seldom have an established standing operating procedure (SOP) for the echelonment of TOC equipment and personnel to provide an interim capability.

2. Task force TOC jump plans are not synchronized into the task force scheme of maneuver.

RESULT: The TOC loses situational awareness and the ability to conduct predictive analysis and timely recommendations to the commander.

Techniques:

1. The task force TOC should establish an SOP that addresses the organization of each echelon of the TOC as it displaces. The SOP should address:
   - The equipment and personnel of each echelon.
   - The duties and responsibilities of each individual.
2. Synchronize the TOC displacement into the task force scheme of maneuver.
   - The staff should use backward planning to select locations throughout the task force's area of operations (AO) that facilitate command and control.
   - Develop triggers and decision points that will determine when the TOC displaces to the next site.
   - Determine all critical events that will require the main CP to remain stationary.
3. Reference: **CALL Newsletter 95-07,** ***Tactical Operations Center***.

(TA.4.4.1 Prepare Plans or Orders)

TREND 46: (LTP) Company/team level time management.

PROBLEMS:

1. Company commanders tend to possess inadequate time management and delegation skills (i.e., trying to do everything themselves), resulting in a significant amount of unfinished business by the LD time.

2. Inexperienced company/team commanders are often unfamiliar with planning and preparing time for combat operations. They are often surprised and sometimes overwhelmed when experiencing the limited time available for planning and preparing for combat operations.

Techniques:

1. Company/team commanders must practice procedures to make best use of their planning and preparation time. Use well-trained battle drills to give the commander the flexibility to save time through standardized reactions to routine situations. Whether actions on contact or preparation for combat operations, commanders must develop standardized procedures for their units.

2. While LTP does not afford commanders the chance or the opportunity to delegate preparation tasks to subordinates, company/team coaches can suggest where and when planning and preparation tasks can be delegated.

(TA.4.4.1 Prepare Plans or Orders)

TREND 47: CSS rehearsals. CSS rehearsals are often not done to standard.

PROBLEMS:

1. Key leaders in the task force CSS leadership do not understand how to conduct an effective CSS rehearsal.
2. Unit SOPs do not address the conduct of the CSS rehearsal focusing on 35mm (Class III, Class V, medical and maintenance).
3. A participant list is not defined and attendance is not enforced.
4. Rehearsals generally take the form of a briefing of the brigade and task force CSS plan.
5. Products (sketch, terrain model, etc.) to assist in the understanding of the plan are not used, detailed enough, or are confusing to the participants.
6. Players show up without the CSS graphic or execution matrix.
7. Key CSS issues are not addressed (fuel, ammunition, medical, maintenance, etc.).
8. Players below the task force level are not actively involved in the rehearsal and do not integrate their plans with the task force or adjacent units.

Techniques: An *effective* CSS rehearsal can multiply the effectiveness of the task force CSS plan; however, a bad or nonexistent rehearsal can have the opposite effect.

1. Develop a page in the task force SOP to address the CSS rehearsal.
2. Define the attendee list and the outline for the rehearsal.
3. Ensure that key topics are covered: Overview of enemy COA and friendly maneuver plan, fuel, ammunition, medical, maintenance support at BCT and task force level, and subordinate unit CSS plans.
4. Capture any issues that are identified.
5. Allow enough time to make an accurate sketch or terrain model and *use it*.
6. Develop a SOP for a FM rehearsal (Refer to **CALL Newsletter 98-5, *Rehearsals***).

(TA.4.4.1.1 Develop and Complete Plans or Orders)

TREND 48: FA battery level Pre-Combat Checks/Pre-Combat Inspections (PCCs/PCIs), and rehearsals.

PROBLEMS:

1. Overall, FA batteries do not do an effective job of conducting PCCs/PCIs and rehearsals.

a. Battery commanders do not adequately identify their essential field artillery tasks (EFATs) and relate specific PCCs/PCIs and rehearsals to the completion of essential tasks.

b. The battery commanders often designate specific PCCs/PCIs and rehearsals to conduct, but because of the *lack of an SOP* or clear understanding of the desired outcome for their tasks, they led to incomplete or poor efforts.

2. Batteries normally focus on the FASCAM and do not consider the other PCCs/PCIs that allow them to survive and move on to their next essential task. They rarely add realism to their rehearsals to simulate the fog of war. Instead, they conduct a simple rehearsal in a static environment with tubes simply following along.

Techniques: Battery commanders should place more emphasis on conducting PCCs/PCIs and rehearsals as part of **Home Station** training. If the battery conducts quality PCCs/PCIs and completes rehearsals, they will validate their plan, prepare for an uncooperative enemy, and guarantee success on the battlefield.

1. PCCs/PCIs ensure the sections are prepared for their essential tasks.

a. PCCs are clearly laid out in a checklist fashion in **FM 6-50**, the battalion playbook, and the battery TACSOP. These checklists are very easy to follow and they ensure the sections will be able to execute the EFATs.

b. Once PCCs are complete, leaders must conduct PCIs. PCIs give the senior leader a chance to instill confidence in the section that it will accomplish its mission by making sure the section chiefs understand and meet the standard.

2. Rehearsals clarify the commander's intent, synchronize the plan, and ensure everyone understands their role.

a. A detailed plan for rehearsals at the battery level must be incorporated into battery-level SOPs.

b. Time is the most precious resource available to commanders and, as such, they can not afford to waste it. Rehearsals take time and can, at times, be very complex. Commanders must realize this and ensure they have a method for conducting a good detailed rehearsal so time will not be wasted.

c. Some critical rehearsal concepts to consider are:

- Prioritize tasks and events.
- Develop a detailed SOP.
- Determine the level of participation for each rehearsal.
- Tie essential tasks to a task, purpose, method, and end state which are clearly stated.
- Establish high standards and ensure that they are met.
- Use the most complete method possible given the time available.
- Make the rehearsal realistic.

EXAMPLE using the essential field artillery task (EFAT) of "firing FASCAM":
1. During mission analysis, the commander develops PCCs/PCIs that relate to the EFAT. In this case, the commander determines that PCCs/PCIs need to be conducted for FASCAM, react to indirect fire, and CASEVAC.
- Each section has critical tasks that must occur for the unit to be successful.
- Each section conducts PCCs based on the unit SOP.
- A senior leader follows up each PCC with a PCI to validate the standard. Inability to complete a good PCI will cause confusion at the section level and may result in the lack of success in the overall plan.
2. Here are some examples of typical questions that might be asked for the above PCIs:

FASCAM:	How many RAAMs and ADAMs will you fire? Or for the FDC, how many aimpoints do you have, and how many RAAMs and ADAMs will you fire at each aimpoint?
React to Indirect Fire:	What is our trigger to move? Where is your alternate position, or where is the rally point?
CASEVAC:	Where is the unit CCP? Where are the current AXPs, FAS, and MAS? What is the travel time? Which vehicles will be used for CASEVAC, and what are the back-up vehicles?

3. Each one of these PCCs/PCIs requires a *rehearsal* to validate that the battery can perform the task. In this case, let us combine all three rehearsals and add realism the way events might occur once we are in battle.
- Begin by going through the FASCAM mission the way it will be fired.
- As the unit completes the mission, use your code word for indirect fire or simulate indirect fire and have the battery react and assess casualties as this is done. Make the number of casualties realistic, not 1 or 2, but 10 or 11 soldiers.
- Treat all of the casualties to standard and actually load them on the evacuation vehicles. (Be sure to validate the evacuation plan.) Once the soldiers are treated and loaded on the vehicles, unload them, but then drive to the point you plan to evacuate the soldiers. This type of rehearsal allows you to verify all three of your critical PCCs/PCIs and does it realistically, the way it might occur in battle.
- The battery SOP must lay down the details for each step of the rehearsal. As the unit improves, the rehearsal can be made gradually more difficult by causing a howitzer to go degraded in the middle of the mission, by calling a howitzer out of the mission, or conducting the incoming in the middle of the mission and seeing how the unit will react. If the unit prepares at **Home Station** and develops a detailed SOP for exactly how they will conduct rehearsals, they will become much more efficient at rehearsals and much more successful in battle.

(TA.4.4.1.1 Develop and Complete Plans or Orders)

TREND 49: Integration of engineer Class IV/V operations in brigade combat team (BCT) plan.

PROBLEM: While most engineer battalions understand the need for a combined arms approach to logistical support of the brigade's defense, they rarely execute an *integrated* Class IV/V plan. Combined arms responsibilities for packaging and moving Class IV/V barrier

materials and for operating Class IV/V supply points are usually outlined in the Engineer Battalion tactical SOP (TACSOP), but are rarely addressed in the brigade's orders.

RESULT: Most engineer battalions end up being the *sole executors* of the planning, preparation, and execution phases of Class IV/V logistical operations. This lack of participation by other members of the BCT in the execution of Class IV/V operations detracts from the engineer battalion's primary missions of countermobility and survivability during the brigade's defense.

Techniques:

1. Engineer planners at all levels should campaign for the active support of other members of the combined arms team in support of Class IV/V operations.
2. This support must be addressed in the maneuver order. Class IV/V operations are so critical to the defense that these responsibilities should be addressed in the Scheme of Manuever and Sub-unit Mission subparagraphs, and not simply relegated to the Engineer Annex.
3. In addition to the engineer battalion TACSOP, the task force and BCT TACSOPs must also delineate responsibilities for Class IV/V operations.

(TA.4.4.1.1 Develop and Complete Plans or Orders)

TREND 50: Engineer battalion headquarters and headquarters company (HHC) commander role in the brigade rear area.

PROBLEM: Engineer HHC commanders tend to locate away from the Forward Support Battalion (FSB) tactical operations center (TOC) and the brigade S4 cell and are not maintaining a presence in the BSA command and control nodes or planning cells.

Techniques:

1. The Engineer Battalion HHC commander is responsible for coordinating and executing the mobility/survivability BOS in the brigade rear area. This includes:
    a. Participating in the FSB Military Decision-Making Process (MDMP).
    b. Assisting the FSB staff with terrain analysis.
    c. Creating obstacle plans for the BSA.
    d. Planning survivability work for critical CSS assets.
    e. Ensuring CSS elements understand obstacle lane/bypass marking.
2. The HHC commander becomes the FSB commander's engineer expert just as line company commanders do for the maneuver battalions.
3. The commander should participate in the FSB orders process and publish an engineer annex with a survivability matrix.
4. A closer training association between the company and the FSB would increase the level of cooperation and synchronization on the battlefield.

(TA.4.4.3 Provide Command Presence)

TREND 51: Fire Support Team (FIST) Pre-Combat Checks and Pre-Combat Inspections (PCCs/PCIs).

PROBLEM:

1. Fire support teams (FISTs) too often do not conduct PCCs and PCIs prior to battle. Without proper PCCs and PCIs, leaders do not identify potential problems prior to execution, and have no time to react to correct them.
2. Many units deploy to NTC with adequate checklists in their SOPs, but units seldom follow what is published in their SOPs.
3. At prerotation inbriefings, task force FSOs often brief they have no visibility on the capability of the company/team FIST to execute PCC/PCIs because this was not emphasized during their **Home Station** training.

RESULT: Often during a rotation, company/team FISTs are plagued with discovering problems with their vehicle or equipment after the line of departure (LD). EXAMPLE: FISTs are unable to use the G/VLLD because of missing or broken power cables in the targeting head, or the lack of charged batteries when dismounting the laser.

Techniques:

1. The task force fire support element needs to have a standard set of mission-specific PCC/PCI checklists in the unit SOP. Once specific PCC/PCIs are identified, leaders must *supervise* and ensure they are conducted and conducted to standard.
2. Leaders must also ensure proper actions are taken to correct deficiencies identified.
3. Conduct of PCC/PCIs needs to be trained and supervised at **Home Station** and incorporated into FIST certification.

(TA.4.4.4 Maintain Unit Discipline)

TREND 52: Utilization of personnel at the Combat Trains Command Post (CTCP).
Combat Trains Command Posts (CTCPs) do not effectively utilize their personnel.

PROBLEMS:

1. Staff officers do not delegate or assign priorities of work.
2. Staff officers (S1/S4) are observed with two to three hand mikes along with map board markers, which is evidence of not using their people to their fullest.
3. Standard job descriptions are not defined, so soldiers do not know what their function is.
4. Initial dissemination of information is poor. Soldiers are not told what is going on.

RESULTS:

1. Officers end up running the command post operation with minimal support provided by NCOs and junior soldiers.
2. Battle preparation is ineffective and inefficient at CTCP/combat trains because subordinates do not know what needs to get done.
3. Drivers do not rehearse proper battle drills and do not know what their mission is or for whom they work.

4. Functions normally not accomplished:
   - Radio logs (DA 1594) not maintained.
   - Logistics tracking charts not updated.
   - Information not disseminated.
   - Attached elements of the combat trains not integrated.
   - Rest plan for the officers not followed.

Techniques:

1. Develop a SOP that clearly defines the responsibilities of each member of the CTCP, both in the CP proper and outside of the CP in the combat trains.
2. Train and authorize NCOs and junior soldiers to operate the CP without the officers and to make appropriate logistics decisions in the absence of the officer in charge (OIC).
3. Get the OIC off of the radio and map so he can look at the big picture.
4. Assign enlisted soldiers as radio telephone operators (RTOs) and make them responsible for logs and updating information on charts and disseminating it to the rest of the CP personnel.
5. Put a NCO in charge of external operations for the purpose of integrating, briefing, and ensuring security to attached elements (**See CALL Newsletter 95-07, *Tactical Operations Center***).

(TA.4.4.4 Maintain Unit Discipline)

TREND 53: Combat Engineer battalion headquarters and headquarters company (HHC) common skills.

PROBLEM: Engineer battalion HHC soldier execution of common skills such as construction of fighting positions, operation and maintenance of crew-served weapons, chemical detection with M8/M9 paper and M256 kits, and reaction to enemy indirect fire are not to standard.

Technique: Units should reassess their individual soldier skill training plan and ensure training is conducted to standard.

(TA.4.4.4 Maintain Unit Discipline)

TREND 54: Integrating aviation planning into the scheme of maneuver.

PROBLEMS:

1. There is a lack of an integrated planning between the aviation and ground maneuver elements.
   a. The aviation and ground maneuver elements plan in a vacuum from one another.
   b. Aviation is usually assigned tasks after wargaming is completed.
2. The geographical distances between the aviation TAAs and the ground maneuver TOC/TACs add to the problem.

RESULTS:

1. Poor synchronization between air and ground forces.

2. Uncommon maneuver graphics.
3. Uncommon control measures.
4. Poor air/ground communication plans.
5. Improperly assigned priority of fires.
6. Attack-by-fire positions and engagement areas that do not support the ground maneuver plan.

Techniques:

1. Assign an air LNO to the ground maneuver element for the planning of all base orders and on a case-by-case basis for specific follow-on missions.
   a. The air LNO must have sufficient technical and tactical competence to be a productive force in the planning process.
   b. If possible, the air LNO can remain with the ground maneuver TAC during mission execution.
2. Combined arms rehearsals between the ground and air maneuver elements are also essential to mission success.

(TA.4.4.5 Synchronize Tactical Operations)

TREND 55: Use of triggers to synchronize CSS with the maneuver plan.

PROBLEM: CSS triggers are not adequately being developed and synchronized in the maneuver plan.

Techniques:

1. Triggers should be developed during the wargaming process and should support the execution of CSS specified and implied tasks drawn from mission analysis and the CSS estimates.
2. Use **Home Station** training opportunities to train CSS planners on the development and integration of triggers to synchronize the CSS plan with the scheme of maneuver.
   - Integrate triggers into the CSS execution matrix.
   - Verify understanding of these triggers at the CSS rehearsal.

(TA.4.4.5 Synchronize Tactical Operations)

TREND 56: Synchronization of combat multipliers.

PROBLEM: Staffs do not fully integrate destructive fires, such as CAS, indirect fires, and air Volcano, to limit enemy reaction to the fire and maneuver plan.

a. Higher headquarters push these resources to the executing unit with little or no planning guidance. This lack of guidance and coordination/refinement often desynchronizes the unit's maneuver plan.

b. Brigade staffs normally select air Volcano targets with no consideration of the supported unit's maneuver plan. Consequently, air Volcano planning is not to standard.

Techniques:

1. The commander must clearly state his intent/concept for fire support. To be useful, the commander's intent/concept for fire support must be both understood and feasible. The commander's intent/concept must articulate:

a. Commander's battlespace: his vision of lethality projection. It should answer the question, "What do I want to do to the enemy?" and articulate more than just, "Defeat him." It should not refer to a specific scheme of maneuver or to specific organizations.

b. What must be accomplished, when, and why.

c. How he intends to shape the battle to his advantage in terms of time and space.

d. The critical enemy vulnerability (center of gravity) he believes will lead most directly to mission accomplishment.

e. Places and times in the fight which are critical.

f. Desired end state in terms of time, force, enemy, and terrain.

g. Which units have priority of fires.

h. Preliminary guidance on high-value targets/high-payoff targets (HVTs/HPTs).

i. His special concerns.

2. The FSO and battalion commander should mutually articulate and understand what fire support can and is expected to accomplish during an operation.

3. The commander's requirements must be within the capabilities of the resources available.

4. The FSO must know and communicate fire support capabilities, limitations, and risks during the process of developing the commander's intent/concept for fire support.

5. The fire support plan outlines the way artillery, CAS, and other fire support systems will be used to complement the scheme of maneuver and provides instruction for executing those fires. It is used to rank targets in priority order, match them with available fire support systems, eliminate duplication with the targets of the echelon that the attack helicopter battalion (ATKHB) is supporting, and allow fires to be executed quickly without specific direction from the commander once the battle starts.

6. CAS is normally planned through FSO channels to the Air Force tactical air control party (TACP) located at a ground maneuver brigade, division, or corps headquarters. Because each member retains his own C2 system, mission planning must be a coordinated effort. Constant coordination is required between the ground maneuver commander, aviation commander, TACAIR flight leader/ALO, and FSO. As elements of the mission change, all members must be informed so that they can adjust their plans accordingly. Success depends on proper synchronization of assets and how well each member understands the operation.

(TA.4.4.5 Synchronize Tactical Operations)

TREND 57: Field artillery unit building of combat power during Reception, Staging, Onward movement and Integration (RSOI).

PROBLEMS:

1. FA units too often do not integrate their battalions into the brigade's plan to build combat power.

2. FA units are not identifying their own glide path to incrementally build platoons, batteries, and the battalion.

3. FA battalions are not including radar, survey, metro, command and control headquarters, and CSS assets.

RESULT: Without an integrated brigade plan, field artillery units find themselves with no priority to draw classes of supply or receive maintenance support.

Techniques:

1. Plan early with the brigade. Remember that RSOI is an operation heavy with logistical implications. Battalion XOs and S3s need to take an early interest in the plan and not totally depend on the battalion S4 to "make it happen."
2. Organize requirements in a logical sequence and assign responsibilities.
3. Establish priority vehicles and units, manage and supervise the plan, and adjust as necessary.
4. A recommended force package 1 to be ready NLT RSOI 02 would consist of:
    a. Firing battery platoon
    b. Firing battery platoon with battery trains
    c. Ammunition section
    d. Survey team
    e. Recovery team
    f. Retrans
    g. POL tanker
    h. Battalion TOC
    i. Metro section

(TA.4.4.5 Synchronize Tactical Operations)

TREND 58: Synchronization of fires and maneuver.

PROBLEM: Fire support is rarely integrated into the task force wargaming process. During the wargame, the battle staff frequently does not effectively arrange activities in time and space.

RESULT: The task forces frequently do not develop a scheme of fires with adequate triggers or with an observation plan that is synchronized with the scheme of maneuver.

Techniques:

1. The task force S3 and FSO ensure the complete integration of fire support into the wargaming process of the Military Decision-Making Process (MDMP) in accordance with ST 100-9, **FM 6-20-10**, and **FM 6-20-20**.
2. The FSO advises the task force commander and S3 when they have asked fire support to execute unrealistic tasks.
3. Fire support tasks and events are arranged in time and space in relation to terrain, the enemy, and the TF scheme of maneuver in order to develop adequate triggers.
4. The end state should be a complete scheme of fires, an observation plan, and refinement submitted to brigade. This end state produces a plan that provides all targeting functions (decide, detect, deliver, and assess) per **FM 6-20-10**.

(TA.4.4.5 Synchronize Tactical Operations)